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EPSON CONNECTION

Devoted to Epson Desktop and Portable Computer Users
AUGUST 1985

VALDOCS 2 MAIL

A New Frontier

Modems that Work

WORLD OF TELECOMMUNICATIONS

QX-11

Epson's Latest

VAR Product

TELECOMMUNICATIONS

Basic Terminology

Modeming Concepts

Guide to Desktop and Portable Programs

0284-0285

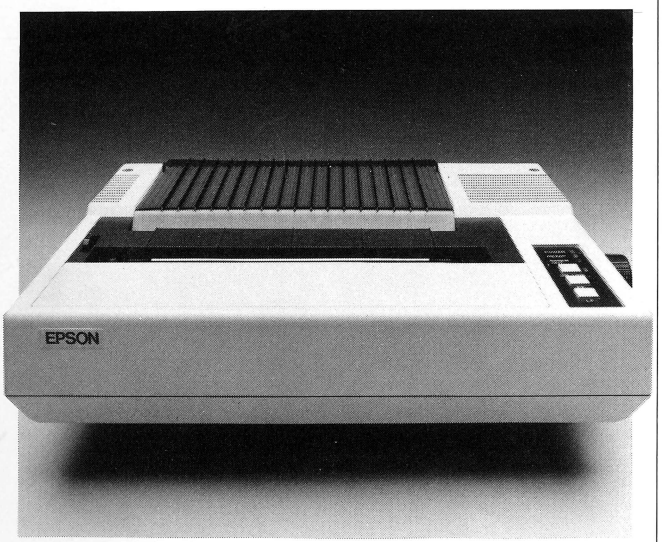
Like our ads, seem to go

The **NON-STOP** *small business printers.*

A simple printer failure can be the downfall of a small business.

No invoices. No computer generated letters. No labels, proposals or reports. And no printer in the next office to pick up the slack.

That's why most small business people rank reliability as the number one priority in a printer. And that's why more businesses of all sizes use Epson® printers than any other printer in the world.



YEARS AHEAD OF THE **COMPETITION**

While most other printers only offer standard 90 day warranties, we stand behind Epson printers for a full year. And we've been doing it longer than most printer companies have been in business. Of course the warranty is one benefit of owning Epson printers that very few people have ever had the opportunity to take advantage of.

Is it an Epson ????? **OR** ????? Isn't it an Epson?

For over a decade, major computer companies have staked their own reputations on the reliability of Epson, by coming to us for the printers they sell with *their* computer systems.

Epson dot matrix printers have very graphic advantages. Besides the versatility of draft and Near Letter Quality and the corresponding speed options, they can draw some very convincing pictures, including true circles.

INCOMPATIBILITY: *the irreconcilable difference.*

Software drives your computer. Software also drives your printer. And it's possible that your computer software will not be compatible with your printer.

This can be shocking when the p's on your monitor come out as q's on your printer.

But Epson printers are the standard to which virtually all major computer software is written. So whether it's IBM® or the newest name on the market, you can use your Epson printer with almost any hardware/software combination.

Epson printers on *forever...*

HARD COPY DECISIONS MADE EASY.

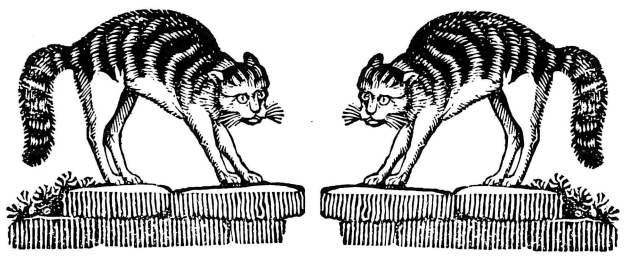
Depending on what you print, how much you print, and how much you want to invest, you'll find the right small business printer right here.

"So the question is: 'Which Epson?'"

For Starters. You're a small business just starting to use computers. Well, just because you don't want to invest a lot doesn't mean you have to settle for less than you need. The new low cost *Spectrum™ LX-80* operates at 100 characters per second in draft mode, prints Near Letter Quality text, has 160 typestyles and has a full range of expansion options. Backed by the same full year warranty as our more expensive printers, it's built to work just as hard.

The New Standard. The Epson FX series has again set new standards as the workhorses of the industry. With print speeds of 160 characters per second in draft mode, easy access to Near Letter Quality, a 20% increase in throughput, and excellent graphics, they're the number one selling printers from the number one printer company. For spreadsheets and financial reports, there's a wide carriage model.

The Complete Printer. For speed, quality and versatility, there isn't a better choice than the new *LQ-1500.* Its type rivals that of an office typewriter, at four times the speed of the average daisywheel printer. In draft mode it flies at 200 characters per second. And its graphics are among the highest resolution of all dot matrix printers.



Recently in Martinez, California, two cats knocked an FX-80™ printer 4 feet onto a tile/concrete floor. Although it didn't land on its feet, it is still running.

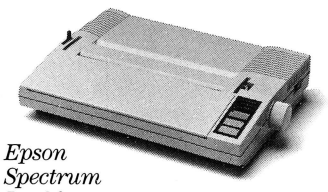
ONLY EPSON PRINTERS COULD GENERATE PRINT LIKE THIS

"Thank you for making such a rugged yet so fantastic piece of hardware."
L.F.G., Martinez, CA

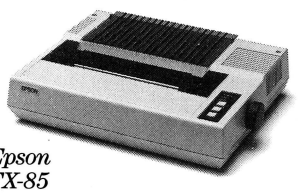
"...a relief in this industry often faulted by products designed to last about ninety days."
John Cameron, Medical Director, Raleigh Hills Hospital

"I have had my Epson FX-80+ about six weeks... my only regret is that I didn't replace my old printer a year ago."
L.A.R., 29 Palms, CA

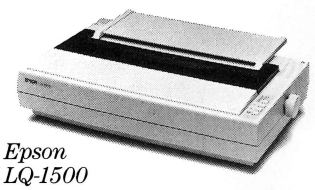
·SMALL· BUSINESS OPPORTUNITIES.



Epson Spectrum LX-80



Epson FX-85



Epson LQ-1500

EPSON

Number One.
And built like it.

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EPSON CONNECTION

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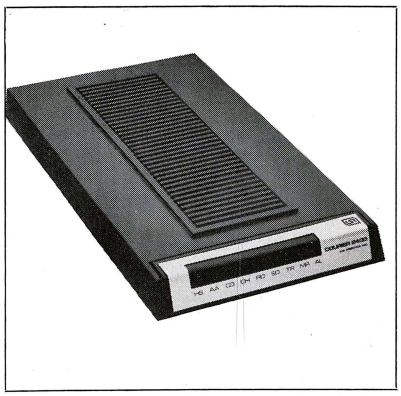

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Editorial

This month we are focusing on telecommunications. The world is virtually at our fingertips as we now dial up encyclopedias, medical information, shop for goods, or communicate with others from our keyboards. Telecommunications paves the way for research at any hour of the day or night, as I discovered one Sunday night when my teenager needed to do a report. We called into Compuserve and searched the Encyclopedia for less than the cost of gas to drive to the library, which was already closed for the evening.

We have included some basics for those just beginning to consider using a modem, descriptions about modems which work with Valdocs 2, how to use Valdocs 2 Mail, and charts on different communications programs on the market for the QX and Geneva users.

We are pleased to have Bill Howey become a regular contributor of tips for your QX computers. This month he discusses some specific applications for DefKey he has found helpful.

Programmers, don't miss the MBASIC Challenge Allen has included this month (page 54).

Next month we will focus on Spreadsheets, and feature the Valdocs 2 Spreadsheet with Draw.

EPSON INTERACT 85

Congratulations to Chuck Champlin and staff for bringing about this first for the computer industry, and Thanks to all the site coordinators from the various Epson Distributors, Jason Rich in New York, Sheila Chuvalas of Micro Computer Center in Dayton, and Ty Sfat for the informal site in Detroit. InterAct gathered approximately 2500 Epson computer users into 9 locations throughout the United States. A live simulcast beamed by satellite from Los Angeles, hosted by Stephen Banker was considered by many to be the highlight of the entire event. Participants received Valdocs 2 and were able to attend classes on Valdocs 2, Telecommunications, "Beyond the A>", Portable Computing and several other topic areas. Unfortunately there were many who were unable to get in, some sites were just too small to host the 500+ that wanted to attend. For those who were unable to attend, perhaps Epson America will make both class materials and video tapes available at some small cost.

The technical tips were a nice touch, and provided much to identify with and laugh about. The production included many special taped segments: Gordon Mustain from Rising Star spoke about their new product support plans (see NewsNotes for details), a visit with the ECCOGRAM (Washington D.C.) Users Group, a quick visit to the Epson America offices in Torrance, and even an onsite visit to our offices in Detroit.

Criticisms? There was a lack of national media coverage of this event, not enough organizational planning or coordination in advance, poor handling of registrations, and class scripts and slides could have been better prepared. We expect this experience will help to improve future InterAct events.

Praise must be given to Epson America for attempting such a User Support effort, and for finally getting Valdocs 2 out the door.

One unfortunate faux pas occurred, which affected several thousand of the new Valdocs 2 owners. We have included the letter Epson America distributed. A problem occurred when the company contracted to mass produce the disks had a hardware problem and created Load disks with errors in the first 12 sectors, which prevented booting of Valdocs 2. This should be all cleared up by the time this is in print. If you are encountering any problems read the letter in this issue (page 7), and the RSI support listed in NewsNotes on the following page.

Carolyn McCarthy

NEWSNOTES

RSI Support. At the Epson InterAct, Gordon Mustain (Rising Star Industries) outlined their new product support plans. The product support staff is headed up by Jim Jeter (Division manager), and assisted by Barbara Braico (Assistant manager), Jennifer Capp, David Warmoth, and Paul Mayville. The support offered is extensive, and entails 6 different levels:

1. Customer Hotline **Phone (213) 373-9127** is available from 9 a.m. to 5 p.m. Pacific Coast time.
2. Written response. If you send in your problems or questions they are promising an answer within 48 hours. **Address: 25500 Hawthorne Blvd. Suite 2000, Torrance, CA 90505.**
3. The Rising Star Newsletter. If you are not on the mailing list, just drop a note to the address above to be placed on the list.
4. Electronic Support via their BBS system. The following systems are available for your computer calls and messages:

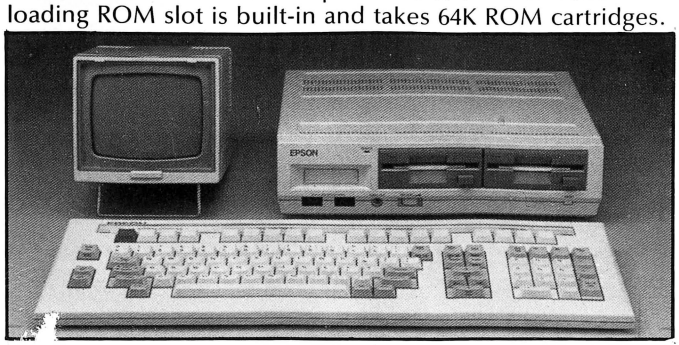
RSI Main Office BBS	**Torrance, CA**	**(213) 373-3709**
Bill Coxe	**Baton Rouge, LA**	**(504) 383-5861**
Ralph Ruh	**Lancaster, OH**	**(614) 687-3530**
Bob Snyder	**La Mesa, CA**	**(619) 462-7227**

5. Customer Services Bulletin. This is planned as a bi-monthly support bulletin beginning this summer and will have a subscription cost. More details will be coming soon.
6. Independent Programmers Guild (IPG). The IPG is being set up to evaluate, manufacture, and market RSI basic programs submitted by end users. There will be royalties to the programmers, and they expect this will become a very needed avenue for specialized software.

Things to come from R.S.I. include the release of a Run Time Compiler for RSI Basic, and a Preliminary TPM III manual. These are both scheduled for release this summer.

Epson Band and Bugle Club invites all to attend a gala event on August 10th in Manchester, NH, 11 a.m. to 5 p.m. For $8. (ages 12 and over) you get all you can eat and lots of entertainment. Contact them for reservations at: **Box 234, New Boston, NH 03070.**

QX-11. Epson America introduced the **QX-11 computer** at the National Computer Conference in July. This is a 16-bit MS-DOS only (uses an 8088 CPU chip) computer, which comes with 128K and one 3.5" 360K disk drive, or as 256K with two 3.5" drives. It is expandable to 512K. A front loading ROM slot is built-in and takes 64K ROM cartridges.



QX-11 Personal Computer

Either an RGB monitor or color TV may be attached. Two monochrome monitors are available, 5" or 12" screens, with 640x400 pixels resolution with 25 lines of 80 characters. The color display functions at 640x200 pixels. Two keyboards are available, a compact one, and full-size. It comes standard with a parallel, RS-232C serial interface, joystick ports, and a ROM socket. The QX-11 has a CMOS real-time clock/calendar with battery backup, and an audio line output.

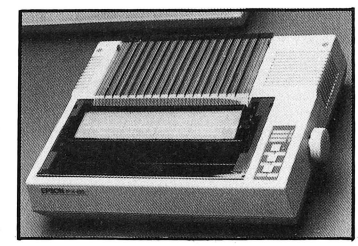
Options include an RS-422 serial interface, IBM™ PC video emulation board, a Hard disk interface card, a 10 M Hard disk drive, and a 300 baud direct connect modem. The software included with the system is MS-DOS 2.11, GWBasic, Enable and a 3-D Graphics program. The computer is aimed at Vertical, or specialized application sales. The presence of the ROM socket, accessible from the front, makes customization an attractive aspect. An interesting unit. Stay tuned for more specifics next month.

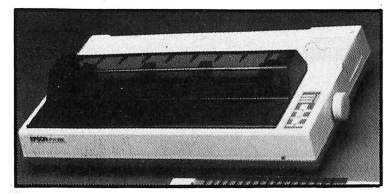
Epson America introduced five new printers at the Spring COMDEX show, and two new ones in July.

HS-80. The HS-80 is a portable ink jet printer which has both draft and NLQ (near letter quality) modes. The printer weighs only 4 pounds, and retails for $449. Printing in draft mode is at 160 cps, and NLQ mode at 32 cps. The print head uses nine ink jet nozzles which output a maximum 240 dots per inch. The printer operates on rechargeable NICAD batteries which are built-in. The HS-80 has eight international character sets, prints in pica and elite for draft mode, and pica for the NLQ mode. It prints in a uni-directional mode, and produces single pass bit image graphics. It will be available in both serial and parallel versions. Friction paper feed is standard, and an optional feeder will be available for $69.95. It can use most types of paper.

The **FX-85 ($499) and FX-185 ($699)** were introduced in July. They feature built-in IBM character sets, and emulate the IBM 51 and 52 graphics fonts. They both have an 8K buffer, and Selectype buttons allowing selection of typestyles from the top. NLQ mode is included (32 cps) and selectable with a dip switch. Epson will be making an FX upgrade kit available for around $85. which may be installed by your dealer.

FX-85
Dot-Matrix Printer





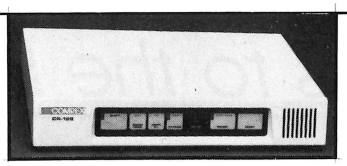
FX-185
Dot-Matrix Printer

DX-10 and DX-20. Epson introduced their first daisywheel printers at the Comdex show in April, the DX-10 ($299) and DX-20 ($459). The Spectrum LX-90 ($389), also introduced, is aimed at the IBM and Apple personal computer market.

P-80X. The P-80X ($379) is a 24-pin, portable (4 pound), letter-quality thermal printer. It is designed with the Geneva PX-8 in mind, and prints in 10 pica and 10 elite typestyles, normal, enlarged, condensed, italics and emphasized print modes, both single and double density. There are seven high resolution graphics modes. The P-80X is a small 2-1/2" x 4-1/2" x 11-1/2" battery powered printer (AC adapter is also included).

Continued from page 6

SQ-2000. The SQ-2000 is already in daily operation in our offices. This printer features a 24-nozzle printhead which produces a very high print quality with a maximum 240 dots per inch graphic resolution. The printing operation is silent, except for the slight noise made for 7 seconds while it goes through the self-cleaning cycle. The printer operates at 176 cps in draft mode, and 106 cps in letter quality mode. Parallel, Serial, and IEEE interfaces are available, it uses the same ones as the LQ-1500. Optional items include: a Multi-Font board, 32K buffer, Cut Sheet Feeder, and Tractor feed. The ink cartridge is easily installed and is rated to last for about 2,000 double-spaced pages of copy. Although no special paper is required, we experienced some slight bleed on fibrous papers, which was not encountered with smooth bond paper. There are 45 font styles, 11 international and 128 downloadable character sets offered. We have found that Valdocs 2 supports the SQ only in some print modes, and hear that Rising Star and Epson are working to develop special Valdocs printer driver programs for the SQ-2000.



CR-128
Intelligent
128K Buffer

CR-128. Comrex introduced an intelligent printer buffer which looks like a dynamite unit. The CR-128 has a 128K buffer. The special part is that it provides multiple Input/Output modes; serial/serial, serial/parallel, parallel/parallel and parallel/serial interfaces. There is a copier function which permits you to produce multiple copies of documents (up to 255 copies), with the press of a copy switch. The Prior Page switch causes the buffer to back up a page, and start printing from there. This is handy if the paper jammed, or was misprinted. Next Page will skip the current page and print the next one. The unit houses a Z-80 microprocessor chip, and can convert EBDIC codes produced by mainframe computers into ASCII codes for your printer. ■

Announcement From Epson America

VALDOCS 2 BOOTING PROBLEMS

Epson America experienced a problem with some of the newly released copies of Valdocs 2. This was first noticed by attendees at InterAct. Imagine proudly going home with your long awaited Valdocs 2, opening the package, immediately proceeding to follow the directions and finding it didn't boot..*&!@??? The following letter from Epson went out in the mail to new Valdocs 2 owners.

Dear Epson QX-10 Owner:

This letter is to inform you of a problem that has been identified with the QX-10 Valdocs 2 Upgrade Kits. This problem is covered by Epson's warranty program. In the interest of time, we have established a procedure that will allow you to fix the problem yourself. However, should you desire, we will be happy to send you a replacement copy of your defective disk(s) at no charge.

A problem in Epson's diskette duplication equipment has resulted in a bad batch of QX-10 Valdocs 2 LOAD-TIME and RUN-TIME diskettes. Please note that this problem does not impact the other QX-10 Valdocs 2 diskettes or the QX-16 Valdocs 2 product. We would like to emphasize that this problem is related to duplication and is not related to the Valdocs 2 software.

We at Epson sincerely apologize for any inconvenience that this situation may have caused. To resolve this situation, please follow the procedure detailed below:

STEP 1

Check to see if you have a "post-fix" version of the software. This software does not have the problem detailed above and is marked as follows:

The Run-time & Load-Time diskettes are marked.
Back of box: 3/4" green dot
Front of box: 3/4" green dot
If your software has these markings, there is no need for further action. If your software does not have markings, please go to STEP 2.

STEP 2

If your diskettes do not have green dots, please verify that your Load-Time diskette is functioning properly. Please boot-up Valdocs 2 according to the instructions on page 2-1 of your Valdocs 2 QX-10 Upgrade Summary.

If you do not encounter any problems, there is no need for further action. If your software does not run properly, please see STEP 3 below.

STEP 3

A defective LOAD-TIME or RUN-TIME diskette can be fixed by following the procedure detailed below. Once you fix the diskette there is no need for further action.

NON-BOOTABLE QX-10/VALDOCS 2 LOAD DISK SITUATION

This procedure will create a workable LOAD-TIME disk from a non-bootable MASTER LOAD-TIME DISK.

1. *Place UTILITIES DISK in LEFT hand drive*
2. *Push reset button.*
3. *When A> prompt appears, remove UTILITIES DISK from LEFT drive.*
   ******* NOTE *******
   IF THE UTILITIES DISK WILL NOT BOOT, TRY THE RUN-TIME DISK. IF YOU STILL CAN'T BOOT, PROCEED TO STEP 4.
4. *Insert LOAD-TIME into LEFT drive. (DO NOT PRESS RESET!)*
5. *Hold down the <CTRL> key and press B.*
6. *At the next A> prompt, type in RESTART and press RETURN.*
7. *VALDOCS 2 will now boot up and prompt you to press any key to start COPYDISK.*
8. *Press any key.*
9. *When COPYDISK MENU is displayed, select <C>opy a disk and press RETURN TWICE.*
10. *When COPYDISK prompts for a disk in the RIGHT hand drive insert a BLANK DISKETTE into RIGHT drive, then press RETURN.*
11. *Copydisk will now make a copy of the LOAD-TIME DISK.*
12. *When copying is completed, remove the disks from both drives.*
13. *Label the new disk as LOAD-TIME (MASTER COPY). DO NOT USE THE LOAD-TIME MASTER!*
14. *Insert the LOAD-TIME disk (MASTER COPY) into the LEFT drive and begin the START UP PROCEDURE as described in the UPGRADE SUMMARY MANUAL.*

If this procedure does not work please refer to STEP 4.

STEP 4

If you have encountered difficulty in solving the problem according to STEP 3, please proceed as follows. Call or write to:

EPSON AMERICA, INC.
COMPUTER PRODUCTS DIVISION
2780 LOMITA BLVD.
TORRANCE, CA 90505
(213) 539-9140
(800) 541-5426

Once you have contacted us, we will send out new diskettes for your use.

Again, we apologize for any inconvenience that may have resulted from this situation. Thank you for your understanding.

Sincerely
Epson America, Inc.

Letters to the Editor

Dear Ms. McCarthy:

I compliment you and your staff on a very fine magazine. It is one which I read cover-to-cover and from which I have obtained very valuable information regarding use of my Epson QX-10 and PX-8 computers. I am a devoted CP/M user and have owned CP/M computers since the inception of the computer revolution. I must admit, though, on review of my purchases, that I am very susceptible to advertising hype. The promises made by Epson and their allied organizations have simply not been fulfilled. I believe that in many ways, we Epson owners have been hung up and left to dry, slowly turning in the winds of commerce which followed the introduction of the IBM behemoth. I believe that Epson made a mistake with the QX-10 and that they compounded it with the Titan board and that they now know that the market lies with the QX-16 and we loyalists are left in the dust.

I recently visited my local Epson purveyor and found an absence of hardware. The explanation given to me was that the QX-16 would soon be arriving. Further, I was told that Epson no longer would supply the Titan board - it would have to be purchased directly from Titan, the new machine would be 'more IBM compatible', etc. I detected a distinct lack of concern for the fate of the Epson owners extant. And this lack of concern for the full potential of the existing hardware was echoed when I called Titan Technologies and explained that Thinktank did not work on their board and the version 1.5 of Managing Your Money also did not work. Their reply was: yes, we knew that. Nothing else. No suggestion that they were working to fix that problem or were working to emulate the IBM as much as possible. Only the feeling that 'you bought it sucker - good luck'.

Why am I writing you? Well, I think that the evidence of viability or your magazine suggests that there are sufficient numbers of existing Epson owners who need continued support. Perhaps some of the readers or EC consultants might know or be interested themselves in creating software support solutions for some of the problems I have indicated above. Perhaps these problems are already solved and only a vehicle is needed to get the word out; yours is such a vehicle.

Whatever the future potentials, your magazine is a forum and I want to be part of the destiny of my past decisions, so I am writing this letter. I would like to see an article, or perhaps an ongoing dialog about these problems (if indeed they are perceived by you and others as problems). The irony of the Valdocs 2 story is that Epson was telling us something all along - we just didn't understand their language.

Sincerely yours
Jack Leissring

EpsonConnection,

The following is a question that I would like answered if possible. I have asked around and have not had too much success. My dealer suggests that I write your office.

Are you aware of software in CP/M - TPM that is similar to the side - ways software written for MS-DOS? I would like to printout my PeachCalc spreadsheets sideways using my QX-10. Also, if present, could such software be used with Valdocs? If such software is not present, do you have a suggestion as to whom I could contact to have it written?

Sincerely
Tom Weeks
Professor of Biology

Tom,

Presently we know of no software that will print out your spreadsheet vertically. Many other readers have also inquired as to this capability. Perhaps someone reading this would assist us.

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Questions & Answers

Q Will Valdocs run on a Semidisk? I haven't seen any user feedback on the Semidisk. Also, has anyone tried mounting the CPU unit of the QX-10 on end, thereby reducing the space it occupies on the desk top? Do you know of any problems associated with doing that?

Christian Rasmussen
Havelock, NC

A *Yes, to your first question. RSI has configured Valdocs to check for the RAM disk, and if it is present, to proceed to load the overlays onto it. One individual at Epson America has been operating his QX-10 with the CPU sideways for some time now, and has had no problems to date.*

Q I have an LQ-1500 printer and all I get are periods no matter what character shows on the screen. I even tried depressing the # 8 dip switch, but this had no effect. Also, my Comrex hard drive squeals when in use. What could be causing this annoying sound and is it possible to stop it?

Barney Rabin
Longboat Key, FL

A *Valdocs version 1 series does not support the QX-10's graphics on the LQ-1500, however, Valdocs II will download the graphics set to the LQ's buffer, allowing use of the special graphics. Regarding your hard drive, you should return it to your dealer for a check-up. The noise may be the drive or the cooling fan bearings wearing out. If it's the drive bearings, then you risk losing everything on your hard drive. Get it to a doctor, and remember, Epson offers an extended warranty program.*

Q Please correct me if I'm wrong, but I have the impression that there aren't many EpsonConnection RBBS's going up around the nation and certainly not in central Florida. I would appreciate more information on this and on how I might set up a RBBS.

Jason Register
Mims, FL

A *Our number of Official EpsonNet RBBS/RTPM systems has been shrinking. In order to increase our*

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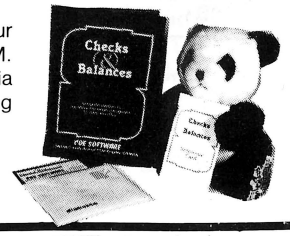

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network, we have now changed our policy regarding these systems. Now, anybody who runs any kind of BBS system on an Epson computer may be considered part of the network, provided that the system is a public, non-profit BBS. This can include User Group BBS's, dealer BBS's, or private users. Further, these systems must call the network coordinator's system (Ralph Ruh, Lancaster, Ohio) once a month to acknowledge that their system is still in operation. Only sysops who properly notify Ralph's BBS will be published in the magazine. If you wish to obtain a BBS program, we have several to choose from on our BBS. If you wish to keep your telephone costs down, two BBS programs have been included on our EC-9 disk. Both BBS's are ready to run, assuming you have a Hayes, or Hayes compatible modem.

Q Is there a way for Valdocs to sort the contents of my documents using only a few keystrokes?

Lina Szklarz
Los Alamos, NM

A *Quite frankly, no. It can be done, but would require several steps and a sort program. Also, the format of your document makes a difference. Several public domain sort programs are available. Most of these programs only sort ASCII files, and all records must usually end with a carriage return, therefore, you can have only one line per record. Briefly, to sort a Valdocs document, set your left margin to zero, then store the document as an ASCII file, run the sort program on it, then re-load it into Valdocs as a Valdocs document. Perhaps in the future we can write a more specific article about sorting Valdocs documents.*

Q What are the proper terminal settings for sending files via the Comrex CR-103 modem back and forth to the Commodore 64? Secondly, is it possible to update a PeachCalc file via modem?

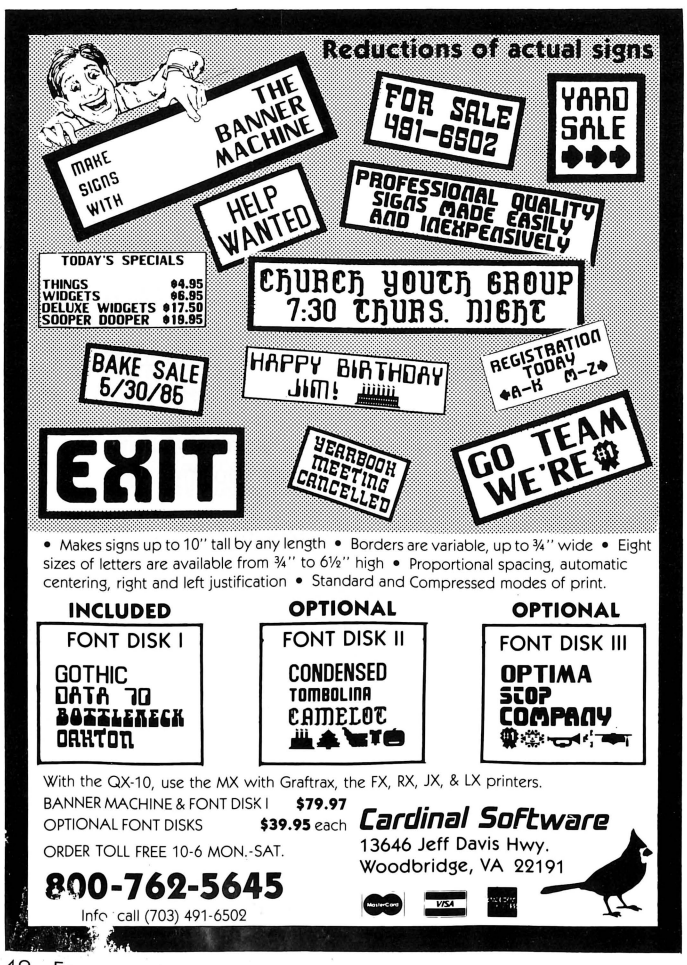
Nancy Robertson
Raton, NM

A *The most common terminal setting is: 8 bit word, 1 stop bit, and no parity. This setting is not critical, but it is important to set both machines the same. For simple communications between two computers, duplex setting is usually set to "half". It is possible to update a PeachCalc file via a modem. There are two ways this can be accomplished. Either remotely operate PeachCalc, or simply send the updated .CAL file to the remote system via XMODEM. The latter would be the more efficient method.*

Q I am weighing the pros and cons of various modems compatible with the QX-10 and it's related software, especially Valdocs. The Prometheus Pro-Modem 1200 is intriguing, but I need more information. Is it compatible with Valdocs, versions 1 & 2? Will it really perform as well as a Hayes Smartmodem? Is there any particular reason why a QX-10 user would benefit from the purchase of the Hayes as compared to the Prometheus?

Hal Simmons
Urbana, IL

A *Hal, in our office we use more Pro-Modems than Hayes Smartmodems because they are less expensive and have more features. A Pro-Modem works just like a Hayes modem in all modem programs we use, including Valdocs 2. Recently, we purchased the US Robotics Courier 2400 baud modem, which also works well with Valdocs 2 & CP/M.*



These custom stands for the QX-10 and Epson printers are made of heavy gauge 3/8 inch clear aclylic with polished edges and non-skid feet. The QX-10's keyboard slides underneath when not in use to protect it and free desk space for other uses. Inserting disks is easier and screen is raised to a better viewing height. Sturdy printer stand provides front or rear access to paper and requires no extra desk space. Available for 80 or 100 series printers (add $3.00 for larger model). Order by mail or phone and pay by check, M.O. or C.O.D. Same day shipment and 20 day return policy. Please add $3.00 per unit for shipping and $1.65 for COD's. MD residents add 5% sales tax. Dealer inquiries invited.

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Modems & Valdocs 2 Mail

by Jim Jeter

(published on CompuServe)

Just wanted to share some of the information that I have gathered over the last few hours/days/months regarding the use and support of modems using Valdocs 2 Mail.

The first type of modem supported is the Comrex CR-103. This is a plug in board 300 baud modem. There is nothing special to do for this modem, just plug it in, and select CR-103 in the SETUP menu. Valdocs always assumes 300 baud when using this modem. The baud rate and other communications parameters do not apply to this modem, if selected they will apply to the QX-10 or QX-16's serial interface, and not the the Comrex modem.

Hayes Smart-modem's are supported at both 300 and 1200 baud. The switch settings for either modem is up,up,dn,up,dn,up,up,dn. If you are using a Hayes 300 baud modem, you must select 300 baud in the SETUP menu. If you are using a Hayes 300/1200 baud modem you should select 1200 baud in the SETUP menu. If you want to place a call at 300 baud using a 1200 baud modem, you should make that selection from within the Valdocs MAIL application (MAIL allows you to setup a protocol card for any type of communications characteristics required).

I have found that most Hayes compatible modems are not entirely compatible. I have listed (below) the switch settings and setup options to use with the various Hayes compatible modems which I have personally tested. If you have a Hayes compatible modem which is not listed in the table, you should follow these guidelines to attach your modem to Valdocs:

1) The modem must be set to respond to DTR (ie: communicate when DTR is active, hangup when DTR is inactive).
2) The modem must supply a carrier detect signal to the QX-10 or QX-16 only when connected to another modem.
3) The modem must respond to the standard HAYES instructions. Some Hayes compatible have a switch to use Hayes commands or their own unique set of commands.
4) Valdocs will instruct the modem to use extended numeric response codes (vs verbal) and not to echo back commands to the computer, be certain your modem is capable of these modes (some modems must be switch selected to these parameters, while others will accept the commands).
5) Some Hayes compatible modems handle auto-answering in a slightly different manner than the real Hayes modem. If your modem does not answer a ringing phone, try the USR PASSWORD selection in SETUP rather than the Hayes selection.

Table of tested Hayes compatible modems

Prometheus Pro-Modem:
SWITCHES: on,on,on,on,on,on,on,off,on,off
SETUP: Modem=Hayes, Baud=1200
NOTES: Works only at 1200 baud without buffering option.

Ven-tel 1200-32
SWITCHES: up,up,up,up
SETUP: Modem=Hayes, Baud=1200
NOTES: Seems to work just like a Hayes.

US Robotics Password modem
SWITCHES: off,off,off,off
SETUP: Modem=USR Password, Baud=1200
NOTES: Although Hayes command compatible, this modem does not have all of the Hayes' features. Be sure to use the USR setup and not Hayes or else the modem will not auto answer.

US Robotics Courier 2400 Baud Modem:
SWITCHES: up,up,dn,up,dn,up,up,dn,dn
SETUP: Hayes, Baud 2400 (not as USR)
(This one from Gary Smith, M.D. 74315,1611)

Cermetek Security Modem
Cermetek 1200:
NOTES: Cermetek modems DO NOT work with Valdocs. The people at Cermetek make their modems Hayes command compatible, but not Hayes line protocol compatible. (in fact, their line protocol, DTR, CTS, DCD does not follow any normal procedure. The carrier detect line is ALWAYS on no matter what while RS-232 transfers are taking place. I consider this a serious bug in their modem's design.)

Hayes Smartmodem 2400
SWITCHES: NONE (software controlled)
NOTES: This modem has no dip switches nor a volume control these functions are controlled by software. So far it has worked flawlessly with Valdocs 2.

Other modem support

To support Dumb modems, or Smart modems which do not conform to the Hayes standard, use the SETUP option of BELL 212 (or other). This assumes the following:

1) The modem will auto answer by itself.
2) Dropping DTR will hangup the modem.
3) The modem will supply DCD (carrier detect) when it is connected to another modem.

Use the SETUP baud rate selection to set your ANSWER mode baud rate desired. Originate mode baud rate should be setup in MAIL. Unfortunately, due to QX-10 (and QX-16) hardware limitations, automatic baud rate selection on auto answer is not possible with Bell 212 type modems.

To use Non-Hayes-compatible smartmodems, setup as if for a Bell 212. You may now enter the Person to Person mode of MAIL and issue commands directly to your modem as outlined in your modems instruction manual.

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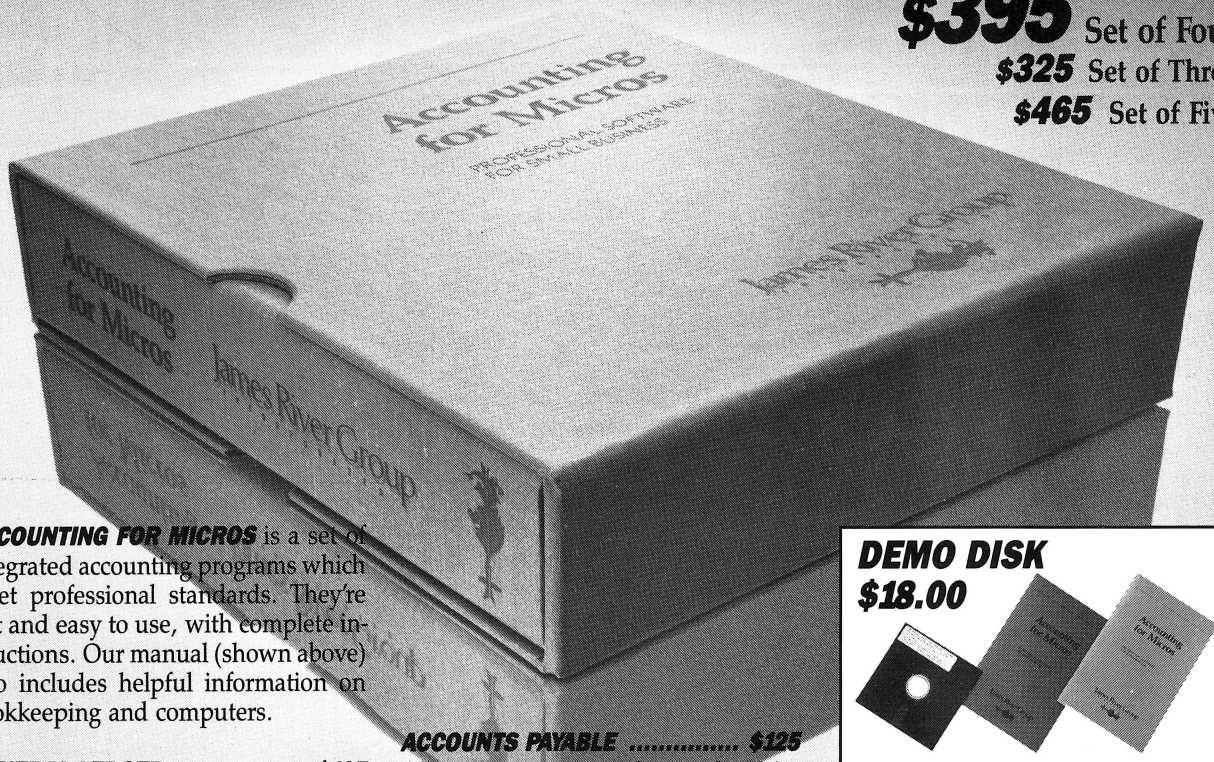

ACCOUNTING FOR MICROS is a set of integrated accounting programs which meet professional standards. They're fast and easy to use, with complete instructions. Our manual (shown above) also includes helpful information on bookkeeping and computers.

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Allows up to 1,000 accounts & 1,000 transactions/month. Retains mo/end balances for Last year, This Year and Forecast. Includes Cash Disbursements, Cash Receipts and General Journals. Reports include Balance Sheet, Income Statement, Annual Summaries and Journal Reports.

ACCOUNTS RECEIVABLE $125
Allows up to 2,500 customers and 1,000 invoices per month. Invoicing can access Inventory Module. Keeps customer names and addresses. Invoice prints on plain paper or any pre-printed form. Statements can be printed at any time.

INVENTORY $125
Allows up to 4,000 parts. Keeps 3 month history of unit sales as well as year to date. With AR, can be used as point of sale system (prints invoices, handles cash). Reports include Inventory Value and Stock Report, Internal and Customer Price List.

ACCOUNTS PAYABLE $125
Allows up to 500 vendors and 600 invoices/mo. Records invoices and handwritten checks. Prints computer checks on any pre-printed form. Keeps vendor names and addresses.

PAYROLL $125
Will handle up to 100 employees with six deductions per employee. Deductions may be determined as fixed dollar amounts or percentages, or referred to a table for automatic look-up. Tax tables are easily entered, or purchased separately.

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Epson QX-10	*Radio Shack CPM*	*Other compatibles*

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General instructions:

The Valdocs SETUP program is used to tell the computer what type of modem is attached. In the case of an external modem connected to the RS-232 connector SETUP also tells the system what the default communications characteristics will be. MOST COMMUNICATIONS CHARACTERISTICS ARE SELECTED IN MAIL AND NOT SETUP.

There is a MODEM INSTALLED option in setup. If you do not have a modem attached to the system, then set this option to NO. If you tell the QX-10 (or QX-16) that a modem is installed when in fact there is no modem, it will try to communicate with that modem, and may cause inaccurate displays in the modem status indicator (in the clock display, lower right of screen) and in MAIL. When you do attach a modem to the system, turn MODEM INSTALLED to yes, and be certain to TURN ON your modem when you turn on your computer.

Background operation:

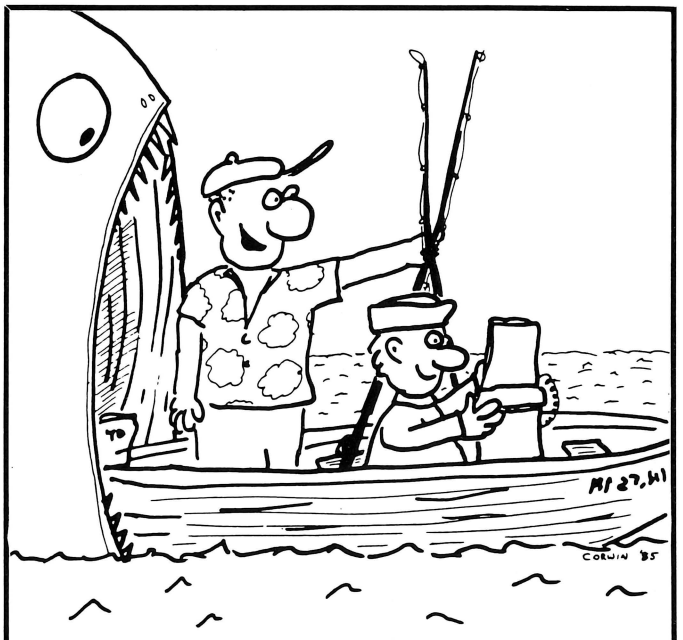
Background operation is the ability of Valdocs to answer an incoming call while not in the Valdocs MAIL program. This background ability may be turned on and off either from SETUP or by typing Control-Mail on the Hasci keyboard. When background mail is enabled, the letter "M" will be displayed just to the right of the clock display on the screen.

When the phone is ringing, a distinctive two-tone alarm will sound for each ring. After the designated number of rings, the modem will answer. At this point a reminder tone will sound every ten seconds until you press the MAIL key to receive your incoming call. Of course if you are already in MAIL the incoming message will be taken automatically without any background intervention.

What happens if you leave the room without leaving the system in MAIL and a call comes in? Well, if you have been out of the room for more than 20 minutes and the screen has blanked, background mail will automatically turn the screen on and then press the MAIL key for you. This way, you should never miss a call. (NOTE: For the full background capability, SETUP options for: auto answer ring count, background answer enable, and screen blank enable MUST all be on). Hope this helps.

Jim Jeter
Rising Star Industries
Customer Services Division Manager

■



"Turn it on Louie. That new Version 2.0 will show us right where the big ones are."

Modem Notes From the EpsonConnection Staff

Many of our readers have called asking for advice on which modem we think they should buy. Although we use different modems for different purposes, when choosing a specific modem one should consider the use to which you will put it, how much money you wish to spend, how fast a modem you need, or if you plan on using a specific type of modem program. In addition to the modems mentioned above we present the following:

Comrex CR-103
Qubie 212A
Ven-Tel 1200

Comrex CR-103

This modem is an internal card which is inserted into expansion slot # 5 of the Epson QX-10. If features auto-dial, auto-answer, and has a built-in speaker. This modem supports 300 baud only. If you only use you QX-10 with the Valdocs software, and are sure that you wouldn't use any other modem program other than Valdocs Mail, and if 300 baud is fast enough for you, then this may be your choice.

Unfortunately, none of our staff members can recommend the purchase of this modem. Some of the reasons include: not Hayes compatible, very little software support, cannot be used with any other computer except possibly the QX-16, speaker is too loud and does not have any volume control. Price: $169.

The CR-103 is fully compatible with Valdocs 2.

Qubie 212A

This modem is claimed to be a Hayes 1200 clone, but for only half the price of a Hayes. This modem supports 300/1200 baud, has auto-answer, auto-dial, and contains a low fidelity Peizo type speaker. Indeed, the modem does contain the same features as the Hayes. Price: $329.00.

The Qubie 212A is NOT fully compatible with Valdocs 2.

Ven-Tel 1200

This is another Hayes clone which has a few problems. It is not fully Hayes compatible; some communications software written for the Hayes 1200 may or may not work on this modem. The modem has been recalled and/or updated by the manufacturer on more than one occasion. It supports 300/1200 baud, auto-answer, auto-dial, LED's, and also contains a speaker. The quality of this modem leaves something to be desired. It's power supply is external. The Ven-Tel is over twice the size and weight of similar modems, thus preventing the power supply from being mounted directly in the outlet. Price: $499.00.

The Ven-Tel modem reviewed did not function fully with Valdocs 2

GUIDE TO COMMUNICATIONS PROGRAMS

PROGRAM NAME / TYPE	Valdocs II Mail	MTERM	MODEM (QXMDM)	MODEM EXECUTIVE (MEX)	MASTERCOM	LYNC	MITE	POST +	PC-TALK	CROSSTALK
DOS Commands From Local Mode		◉	◉	◉	◉	◉	◉	◉		◉
Configuration Data Files	◉	◉			◉	◉	◉	◉	◉	◉
Auto Logon	◉			◉		◉		◉		◉
Built-in Phone Book	◉	◉	✸	◉		◉		◉	◉	◉
Host Mode	◉				◉	◉				◉
Character Filter				◉		◉	◉	◉	◉	◉
Built-in Editor	◉							◉		
Data Capture Buffer	◉	◉	◉	◉	◉	◉	◉	◉	◉	◉
XMODEM File Transfers	◉		◉	◉	◉	◉	◉		◉	◉
ASCII File Transfers	◉	◉	◉	◉	◉	◉	◉	◉	◉	◉
Macro Keys	◉	◉	✸	◉		◉	◉	◉	◉	◉
CP/M		◉	◉	◉	◉	◉	◉	◉		◉
TPM	◉		◉	◉						
MS-DOS					◉	◉			◉	◉
Documentation	Good	Good	Fair	Built-in	Good	Excellent	Excellent	Good	Good	Excellent
Ease of Use	Excellent	Good	Fair	Good	Good	Fair	Good	Good	Good	Excellent
Price					$49	$200	$200	$160		$150
Commercial					◉	◉	◉	◉		◉
Public Domain			◉	◉					◉	
Standard	◉	◉								

✸ = Requires separate utility program to change.

-DEFINITIONS-

ASCII File Transfers - To send and receive ASCII files.

XMODEM File Transfers - To transfer any type of file via XMODEM (Christensen) protocol.

Macro Keys - To store a series of characters or commands which then may be recalled by pressing only one or two keystrokes.

Data Capture Buffer - To store the contents of your screen display into your system's memory (or disk) for later manipulation.

Built in Editor - A means of editing files without initializing an external editor program.

Character Filter - The ability to filter out unwanted characters that the host system may occasionally send to your system.

DOS Commands from Local Mode - To perform CP/M, TPM, or DOS commands (DIR, REN, ERA, etc.,) from the local mode of modem program.

Host Mode - The ability to configure the modem program to receive calls from other computers (unattended).

Built-In Phone Book - An area in which a listing of phone numbers may be stored and utilized by the modem program.

Auto Logon - The ability to automatically log into the host system upon modem carrier detection (automatically enter user ID, password, etc.,).

Configuration Data Files - The ability to store configurations (protocol, phone numbers, macro keys, character filter info, etc.,) of individual host systems to data files, which may be retrieved for later use when the host system is to be called. Prevents manual pre-configuration of your system when you decide to call another host which uses totally different protocol, commands, etc..

The Basic Concepts of Modeming

By Allen Howell

So you just bought a new modem for your computer and now you are ready to explore this vast world of telecommunications. Maybe you bought your modem to help your business needs, or maybe you're a college student who would like to access your school's mainframe system, or like most people, you are just fascinated by the concept of communicating cross-country and want to download some of the public domain programs that are available for your computer system. No matter what the reason, you'll have to learn how to use a modem program (also referred to as terminal and communications programs), a process which can be quite frustrating for those who are just getting started.

What is a modem program? It is a program that allows your computer to communicate with your modem. Most computers purchased today come with some kind of modem program. If you bought the QX-10, then you got two of these modem programs: MTERM - (to be used with CP/M), and Valdocs mail. Valdocs mail is one of the easiest to use, and is therefore recommended to beginners. There are many commercial modem programs available that contain more features and frills, and there are also many public domain modem programs.

It doesn't matter which program you plan on using, for most of them use the same operating concepts. The intention of this article is to point out the two basic modes of operation, and how to send and receive files and programs.

The two basic modes of a modem program are "local mode" (sometimes referred to as "command mode") and "terminal mode". This is perhaps the most important concept for new users to understand. The commands available for users within these two modes are totally different, and confusion results when inappropriate commands are entered.

Local mode is the mode wherein you communicate with YOUR OWN computer system.

Local mode is the mode wherein you communicate with YOUR OWN computer system, and all the commands you enter while in this mode will be acted upon by your own computer, not the "host" (the system you called) system. Some of the common functions that are available in most modem programs within the local mode are:

1) data capture
2) printer toggle
3) CP/M commands (DIR, ERA, etc.,)
4) serial port configuration
5) file sending and receiving commands, to name a few.

Terminal mode is the mode wherein you communicate with the HOST system. . .

Terminal mode is the mode wherein you communicate with the HOST system, and all the commands you enter while in this mode will be acted upon by the HOST computer, not your system.

Moving from local mode to terminal mode (and vice versa) usually requires a special command or control key combination; this combination varies depending on the terminal modem program you are using. Some modem programs will automatically switch between the two modes; this is a nice feature, but can be confusing since users may not know when modes have changed.

Before you start dialing your local BBS, be sure you have your "protocol" set up properly. Protocol is a format for communications that you usually set up through your modem program's local mode. Most BBS's use the following format (or protocol):

1) 8 bit word
2) 1 stop bit
3) No parity

So unless you know exactly what the host system's protocol is, use the setting given above.

Another setting that you should be sure to set properly is the "duplex" setting. What is "duplex"? It is a channel providing simultaneous transmission in both directions; in other words, it allows you to enter data to the host system while it is sending you data, at the same time (see "Basic Terminology", page 17). This setting may be set at "half" or "full". When you call BBS systems, or commercial data base systems (CompuServe, The Source, etc.), your duplex should be set at "full". When full duplex is enabled on your system, your modem program will NOT echo characters you type to your system. This is the responsibility of the host system. This is done type of check; information

is transmitted to the host system, which will then send it back to your system. This way you can be sure what you entered is what the host system received. If you and a friend decide to call each other using a typical modem program, then the duplex setting is usually set to "half", since most simple modem programs do not support "full" duplex within in the "answer" mode.

To get the most out of your modem program, you should practice using it on a local BBS system (if possible). This will save you on long distance telephone charges while you are learning. Once you are familiar with the operation of your local BBS and your modem program, try calling cross-country as well as some really sophisticated systems.

Ok, so you feel you can maneuver within your modem program and your favorite BBS pretty good. Now you are ready to "download" programs from the BBS to your computer. "Downloading" is the process of sending a file or program from the host computer to your computer, whereas "uploading" is the process sending a file or program from your computer to the host system (a rare occurrence!). Before you attempt to upload or download, you should be aware that there are two common protocols available; ASCII file transfers, and XMODEM (commonly called Christensen protocol, after the name of it's creator, Ward Christensen).

What is ASCII? It's what you are reading right now! All of the letters of the alphabet, numbers, and special characters such as !,*,@,$, etc. are known as ASCII characters. ASCII stands for "American Standard Code for Information Interchange", a number-character code that was established early in the computer industry so that different computers could understand each other. So, the easiest way to distinguish if a file is ASCII or not is simple. Generally, if you can read it, it's ASCII. Most modem programs contain provisions to allow you to send or receive ASCII files, and until the XMODEM protocol was created, ASCII file transfers were about the only way to transfer files. Unfortunately, ASCII files are not the only type of files that are desired to be transferred. Programs (object code), for instance, could not be transferred within this means since these programs contained non-ASCII codes; codes that only the computer would understand if it were running the program. These non-ASCII codes would confuse the modem programs if an attempt were made to transfer them, and the receiving computer would receive only a handful of garbage and useless characters.

Another disadvantage to ASCII file transfers is that noise in the phone lines would often "wipe out" parts of the file that were being transferred, thus users could not always be sure of getting a good copy of a file or program.

The XMODEM protocol allows any type of file or program to be transferred, and at the same time it will check each section of a file as it comes across the phone line to be sure that the receiver is getting a good copy. This protocol is far superior to "straight ASCII" transfers. I have yet to receive a bad copy of a program through this protocol.

For these reasons, it is recommended that you use the XMODEM transfer protocol for all of your uploading and downloading. ASCII transfers are almost non-existent, and used primarily to send a pre-created message to a message base on a host system.

The most common way to upload and download files is from the operating system of the host system. To maneuver within the host's operating system, it is almost always assumed that you, the caller, are familiar with CP/M commands. So, unless you are familiar with CP/M (or TPM), it is suggested that you read the first 40 pages or so of your CP/M manual (or MS-DOS).

Once you have found a program on the host system that you feel you'd like to have, you must first inform the host system that you want it to send it to you. This is most commonly invoked by entering:

XMODEM S filename.abc

where "filename.abc" is the name of the file you want the host system to send to you. This is the syntax that most systems support, assuming that you are in the operating system of the host system. Take another look at the command syntax. XMODEM is simply the name of the program that will allow you to send or receive. The "S" tells XMODEM to SEND the file, and after the "S", you enter the name of the file you want XMODEM to send. Simple enough? After you enter the XMODEM syntax, XMODEM will respond and inform you how big the file is and show you how long it will take to transfer the file in minutes and seconds.

The above paragraph only informed the host system to send the file, so now you must tell YOUR OWN computer to RECEIVE the file. With most modem programs, you must enter the local mode of your modem program, then enter the proper sequence of commands to tell your modem program to receive the file. Once you have informed your system to receive, the XMODEM protocol will automatically take control of both computers and proceed to transfer the file. When the transfer has completed, you must then return back to terminal mode to resume communications with the host system. Note that some terminal programs will automatically return you to terminal mode after a file transfer.

If you wish to SEND a file to the host, the process is basically the same. From the host system, invoke XMODEM by entering "XMODEM R filename.abc". Note the "R" in the syntax. This informs XMODEM on the host system to RECEIVE a file. Once XMODEM is ready to receive, then enter the local mode of your terminal modem program and tell it to SEND a file, making sure that the file you wish to send is stored on your system.

As you grasp the concepts of using a modem program, along with a little experience, you should soon realize that operating a modem program is both a simple and logical procedure. Once you learn the elementary concepts of one modem program, you have learned the basic functions of all modem programs. ■

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Telecommunications

Basic Terminology

by Sherwin Levinson

While telecommunications, with its jargon of **bauds, stop bits, protocols, and duplexes,** can seem like a strange and forbidding world to the uninitiated, it's really not all that hard to understand. It's simply a matter of getting two machines to speak the same language at the same speed. If they don't, the result is like trying to understand a Chinese radio broadcast (assuming you don't speak Chinese) or listening to a tape played in fast-forward.

Telecommunications requires that your computer be connected to some other device, another computer or a terminal, that's capable of receiving and/or sending data. This connection can be made directly, with a cable, or through the use of modems. All a modem does, in effect, is allow you to use the telephone lines as if they were your own private (and very long) cable.

The **baud rate** is the speed at which the computer transfers data (in bits per second), and the two machines communicating must be set to the same baud rate. The structure of the information itself is determined by setting the number of **data and stop bits** and by the **parity bit** (typically even or odd) which is used in some cases. The QX-10 and PX-8 are both "8 bit" computers. This means that information is transmitted and stored in 8 bit sequences. Each ASCII character, (alphabet letters, numbers, punctuation, etc.) are represented by 7 bits, leaving an eighth bit available for other uses. This eighth bit is used for parity checking. Parity checking is a process used in communications programs to make sure that data received is the same as the data sent, and that no errors in transmission occurred. Just as with baud rate, the two machines must be set to agree on the structure of the data.

To understand **duplex**, keep in mind that information can travel both from your machine to the other one and from the other computer to yours. In **half duplex** mode, what you send to the other machine is simultaneously sent to your own screen by your own communications program; this mode of operation is also called "local echo." In **full duplex**, also called "remote echo" or "echo-plex," your own machine does not display what you send. Instead, the other machine must send back -- or echo -- everything that you send it if you are to see it on your display. So duplex or echo mode determines whether your own machine displays what it sends. If you see everything you type twice, then your machine is in half duplex mode and the other machine is also echoing what you send; turn off your local echo.

The last basic of communications is **protocol**, which is how the two machines tell each other how their "conversation" is progressing. There are two aspects to what is commonly called protocol. One, also known as "handshaking", is how each machine tells the other when it is and isn't ready to accept more information. For example, if your machine is storing what it receives on a disk or tape, it needs to tell the other machine to stop sending information and wait while it stores away what's already been received. The most common handshaking protocol in telecommunications is "stop/start" or "X-off/X-on." All these mean is that when one machine sends a special character -- control-S or X-off -- to the other machine that other machine is to stop sending until it receives an X-on (control-Q) saying it's okay to send some more.

The other type of protocol is "error-checking," which enables the receiving machine to insure that the information received has not been garbled along the way. Just as you sometimes have a bad connection when talking on the phone and can't understand what the other person is saying, the same thing can happen with computers. An error-checking protocol is an absolute must when transferring critical information, like programs or accounting data, when having even a single character incorrect could be disastrous. One of the most common error-checking protocols is called Christensen or XMODEM protocol. ■

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The Bread Board System

By Ralph G. Ruh

SPEC SPOT

Program: TBBS
Type: BBS Communications Package
Computer: Epson QX-10
Operating System: CP/M 2.2 and above
Price: $299.95
Ease of Use: Excellent
Performance: Superb
Documentation: Good
Manufacturer:
Ebert Personal Computers, Inc.
4122 South Parker Road
Aurora, CO 80014
(303) 693-8400

Many of you are familiar with bulletin board systems such as the EpsonNet Network, Compuserve, The Source, EpSource and others. Most of these systems share the same primary purpose of providing the user with a source of information, software exchange and the availability of other like computer users with similar problems and solutions. I have been involved with Bulletin Board Systems (BBS) for more than three years now and as many of you know I am the network manager and founder of the EpsonNet Network. We have developed the software for the network over many months of trial and error and have ended up with a powerful communication package. During these many months I have had the opportunity to contact many types of BBS systems, and to this point I had never really been impressed with much of what I saw. I first came into contact with The Bread Board System (TBBS) during one of my many calls around the country. What I saw gave me pause and excitement to study this communications package further.

My initial excitement about this software was with the speed and ease of use from a user viewpoint. Information and help were available at the touch of a key, which is similar to a concept with which I had become familiar. Upon receiving my copy of TBBS my first impression of it came from the documentation package. The documentation is the standard IBM type with an open ended box containing the single users manual inserted into the opening. A compact and easy to use setup.

DOCUMENTATION

The documentation contains 11 chapters an index and a table of contents. It is a worthy effort but lacks the extensive index that this software deserves. The chapters cover each of the system editors and utilities contained in the software package and explain their uses and functions satisfactorily. I would have preferred a more detailed discussion of system setup and more sample system layouts but the documentation covers all the necessary information to get your system up and running in less than an hour. I would suggest a careful reading of the manual before setting up your system, because a good understanding of each of the system editors and utilities is essential, as is the case with any software you purchase.

SETUP

The TBBS distribution disk contains a sample system including all necessary menus, configured for a standard, ready to run system. All thats necessary to get your system up and running in a short time is just a matter of formatting two disks, copying your CP/M operating system onto the left floppy and moving the sample menus and TBBS programs to the appropriate locations as described in the manual. Its as simple as that. From this point on you are free to modify and experiment with the sample menus to your hearts content. TBBS offers such extraordinary flexibility in menu organization and editing capability that you may continue to modify your system for many months. Your system can be as simple or complicated as you or your users desire.

```
++++++++++++++++++++++++++++++++++++++++
*****The CompuLink System Main Menu*****
++++++++++++++++++++++++++++++++++++++++

<G>oodbye     <C>hat     <T>ime on System


<Q>X-10 ... Epson QX-10 Board

<I>nformation ... General System
<H>ints on Using this System
<U>tilities Section ......
<$>Classified Advertising Section
<M>ail ... Electronic Mail - Private
<E>psonNet Sysop Board (PRIVATE)
<S>IGS ... Special Interest Groups
<F>eedback to the Sysop
<->Quick Logoff
```

If you plan to operate your system at 300/1200 baud, you will need to obtain a special cable or simply modify your existing cable as described in the manual.

PERFORMANCE

TBBS has to be the fastest, most efficient communications package I have ever seen. Even at 300 baud the user will be amazed at the speed at which he can move from menu to menu. During initial user log-on the program authenticates and logs on the user quickly by any of three modes chosen by the SYSOP. By placing your menu control files in your RAM DISK, the access time is greatly enhanced. The SYSOP has 256 levels of privilege and 16 user flags available to him for establishing user access to portions of the system. You may also define up to 25 different special interest boards within TBBS. I have been operating TBBS, on the EpsonNet Network system that I run, for about three months now and during this period I asked callers to respond to a survey telling me which system they preferred, TBBS or RBBS, and out of 200 respondents more than 90% said they much preferred TBBS for speed and ease of use. TBBS allows private boards that some may

access and others will not be able to see or use. You may set up the system to take surveys and play adventure games; it's only limited by your imagination.

SUPPORT

In addition to substantial telephone support offered by Ebert Personal Computers, Inc., especially by the president of the company, they offer a TBBS SYSOP bulletin board. This board is private and open only to TBBS owners. This board contains much information regarding the use and setup of TBBS, and also has a section dedicated to modifications of TBBS and its editors which is a snap to install using the supplied utility called MODIFY. Simply download the modification, assemble it with your CP/M assembler and install the change into the proper program using MODIFY. Hundreds of TBBS owners use this board, therefore you have access to long time owner's experience for answers to your questions. Phil Becker, the author of TBBS is available to answer questions and listen to your suggestions for improvement. Through this type of discourse on the TBBS SYSOP board, a few bugs and improvements were discovered and promptly repaired and the fixes made available to all owners. Where else can you find this type of software support?

SUMMARY

After using TBBS for several months and comparing it to other communications software available, I have concluded that TBBS is an excellent communications package for home and corporate users. It is one of a few software packages, that I have reviewed, whose price fits the software. If you are looking for a strong stand-alone communications package, then I highly recommend the TBBS software package. ■

Tape of the Month #8

Since the spotlight of this months issue is on telecommunications, it is only fitting that the Tape of the Month offer the most versatile communications program available for use on the PX-8 -- MEX or Modem Executive Program. The program is set up to use either an external modem or the internal modem of the PX. Because the program is 26K in size, we would not recommend its purchase on tape for use on a PX-8 without some type of memory expansion. See our special ROM of the Month offer if you wish to use this excellent program and need the extra memory. This public domain program is provided on a quality micro cassette and the price does include downloading, postage, and handling. **To order the Tape of the Month,** please send a check or money order for $12.50 to the EpsonConnection, Tape Service Department, P.O. Box 14027, Detroit, MI 48214 (the extra cost of this months tape is due to the extremely large document file for MEX). Please be sure to indicate the tape order number (TOM-8) with your payment.

Disclaimer: All of the programs and documentation on this disk are known to be public domain and no warranties are expressed or implied. A beginning knowledge of CP/M is also recommended to utilize this software.

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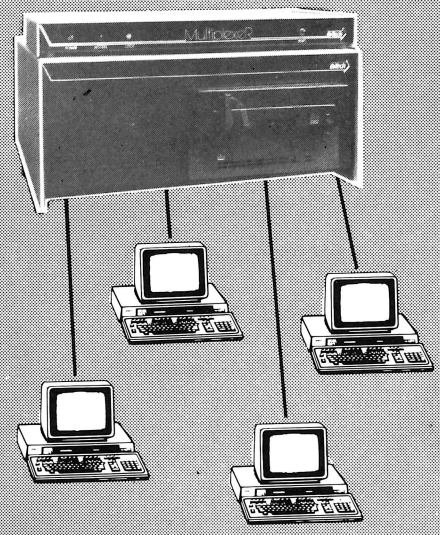

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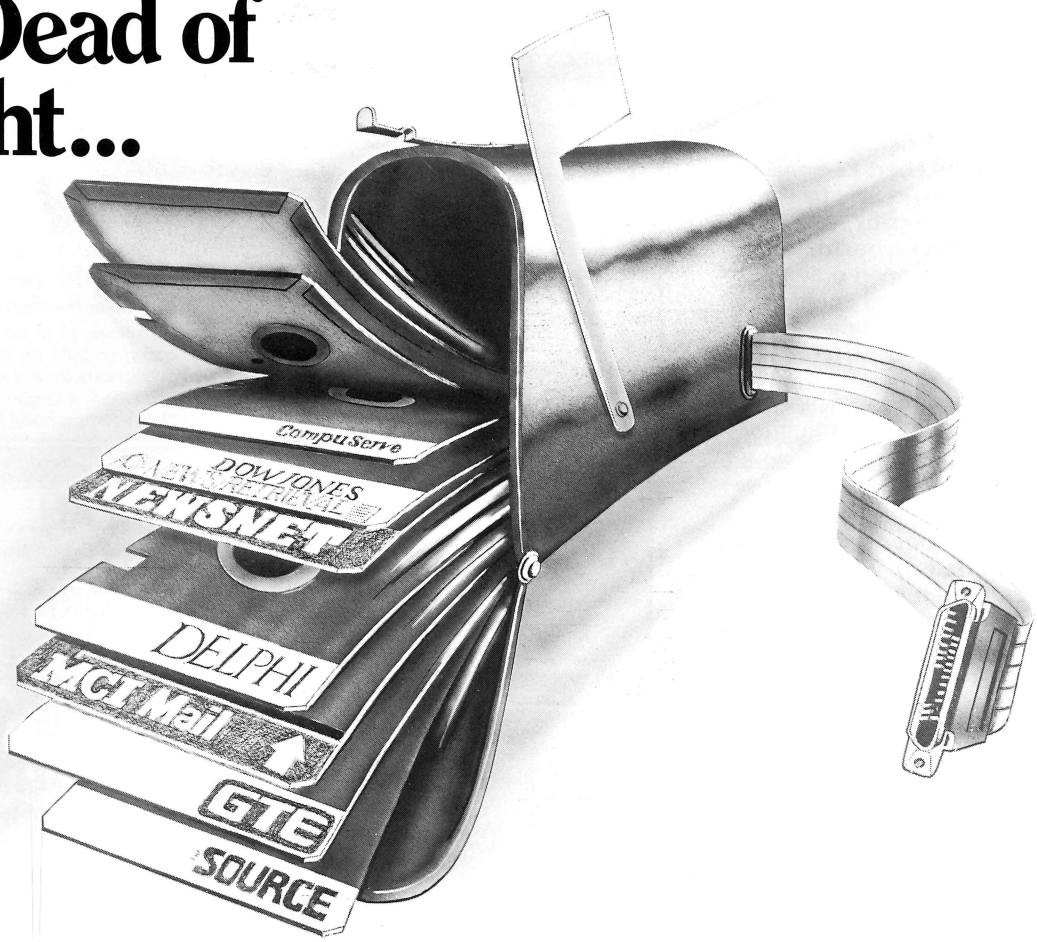

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POST PLUS

A Powerful Communications Package

By Arshag K. Odabachian

SPEC SPOT

Product: Post Plus
Type: Communications Software
Computer: QX-10
Operating System: CP/M
Required Peripherals: Modem
Price: $160
Ease of Use: Easy to use
Performance: Excellent
Documentation: Good
Summary: Very good software
Manufacturer:
MCTel
33 Bala Plaza
Suite 505
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Before spending any money on communications software you should determine your needs and goals. Ask yourself: Am I using tele-communications as a hobby or for business? Do I need only to retrieve data and mail? Or, do I want to send it also?

If you're like my friend John, all you really care about is getting on the local bulletin board, checking out the latest free software, and leaving a message telling everyone that you are selling your old Altos computer for an unbeatable price. If this sounds like you, don't waste your money on any communications package. Use your Valdocs mail facility, or, if you want power without documentation, there is the infamous MODEM 7 series of public domain software. If you know someone who is new to computers or telecommunication, and you wish to totally confuse him, give him MODEM 7 and say,"You'll get the hang of it."

On the other hand, if you're not a Bit-fiddler or a Tele - Hacker, and you want to be able to talk to any computer on the planet, you need a package that's easy and powerful. (I know, easy and powerful do not usually go hand-in-hand.) And this package should also be able to use the Electronic mail and information services to their fullest capabilities.

And here we have it: POST PLUS. One of the slickest and most powerful Tele-comm packages to ever grace a serial port. *Post Plus* is menu-driven, always prompting the user to make a choice. Nearly all of the commands the user gives are single keystrokes, like "Q" for <Q>uit, "M" for <M>essage, and so on.

The features of Post-Plus, are extensive. Here are a few outstanding ones.

1: It has a very powerful message processer. Notice I said, "message processer", not "word-processer." It has all the bells and whistles of one, including block moves, two documents on screen simultaneously, mid-loading text from another file, and so-on. But... it is memory dependent, so the people at MCTel set the message buffer at 12k (but you can change that!)

2: MACROS and more MACROS! This software has some real KEY control. Fairly easy to set up, accessed by the "\" key, the macros are truly full-featured. Designed for both the beginner and the modem-minds.

3: PBP. MCTel calls this a "File Management Program". Well anyway, I'll tell you what it does. It can scramble and unscramble files and messages, if you have the key-code for that file.

Some of its other features include: "Hexadecimal coding and de-coding","Binary coding and un-coding","Softening and Hardening text" (removing and inserting returns), adding line feeds, taking them out, etc.

4: PPP (That is my acronym for,"Protocol, Parameters, and Printers.") "PPP" lets the experienced Tele-Comm person appreciate some real horsepower. Everything can be configured the way you want it. I'm not just talking about changing parity, stop bits or word-length. I'm talking about full RS-232 control, system calibration, video codes, keyboard translation tables, and a lot more.

• • • • •

CONCLUSION: *Post-Plus* rates about a 8.5 for the beginner, and a 9.5 for the ones that are more versed in telecommunications. The only reason for the 8.5 score is the documentation. It's good, but it could be better. If you are going to use Electronic Mail Services, don't look any further than Post-Plus. *Cross-talk* and *Mite* are not geared for EMAIL the way *Post-Plus* is. And nothing is as versatile. ■

Arshag Odabachian has an electrical engineering degree and is a CAD specialist who has been in the field of computers for 7 years. Also a telecommunications specialist, Arshag is Senior Consultant at U.S. Computer Corporation.

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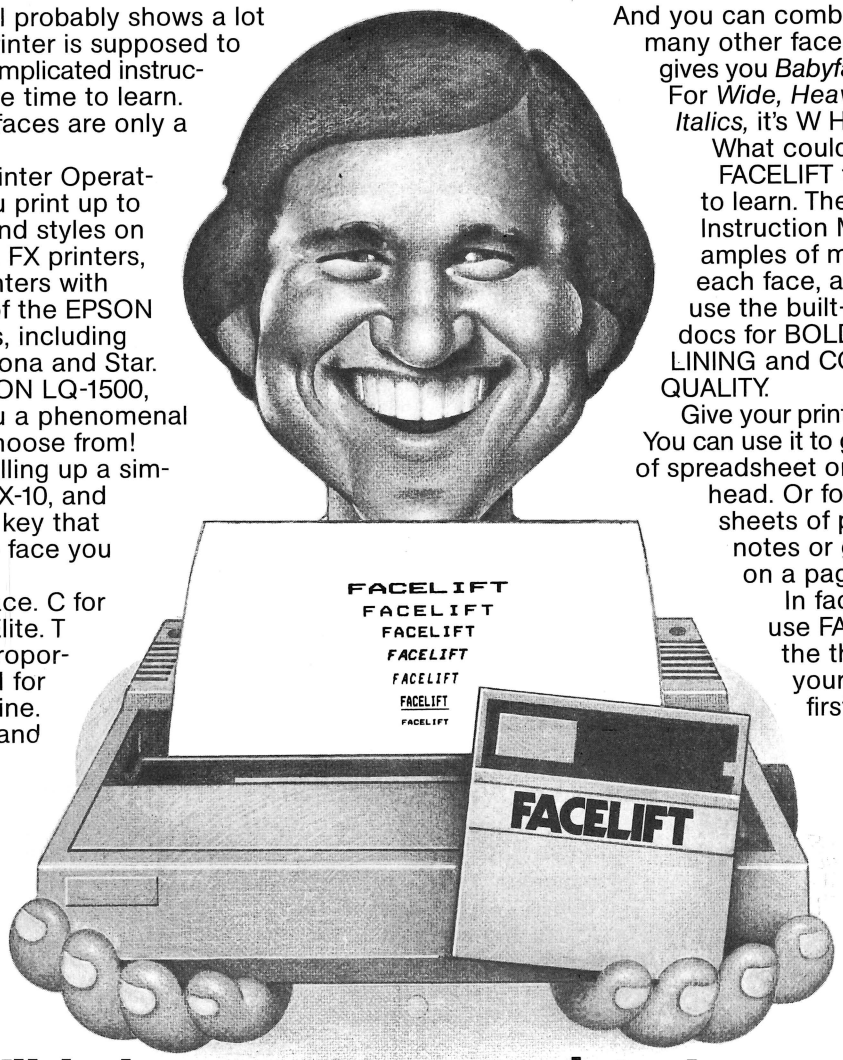

And you can combine the above to get many other faces. For example, B I U gives you *Babyface Italics, Underlined.* For *Wide, Heavy, Doublestrike Italics,* it's W H D I.

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Disk of the Month

EC-12 This month's disk contains several of the best public domain CP/M communication programs available for the QX-10.

MDM798.COM is a standard MODEM7 series modem program and is a favorite among many users.

Contained within the QXMDM.LBR file are two versions of the ever-popular QXMDM program. QXMDM.COM is the modified MODEM7 program that includes features specific to the QX-10 e.g. graphics mode, CMOS Ram access. QXMDM103.COM is the same as QXMDM.COM, except that this version has been configured for the CR-103 modem. Included within the library are two utilities which allow you to easily alter the telephone list directory and the macro (function) key assignments. Also included is a documentation file that will help those of you unfamiliar with any Modem7 series program to use the program almost immediately.

MEX is a new modem program for CP/M and derivative operating systems. It is a superset of such programs as MODEM7 and MDMxxx. New features include:

- Compatible with MDM7 overlays.
- PHONE command allows telephone numbers to be dynamically entered into and removed from the telephone library ... telephone numbers are associated with mnemonics that may be up to 12 characters long, and may optionally specify the baud rate for each site in the list.
- KEY command supports multiple-character keystring creation and deletion, for use as dedicated function keys in terminal-mode.
- LOAD and SAVE commands allow keystring definitions and telephone number libraries to be saved to and loaded from disk files.
- READ command supports unattended sessions, under control of a disk file created with an editor (similar in concept to CP/M's SUBMIT, with enhancements).
- Greatly enhanced terminal mode.
- SENDOUT command to send strings to the modem (usually under control of a READ file).
- CALL command allows multiple sites lists to be specified, and each number to be repeatedly re-dialed any number of times.
- STAT command allows the inspection and modification of a large number of system variables.
- HELP command random-accesses a disk file to provide an on-line documentation facility that completely explains the program.
- CLONE command allows MEX to be saved to disk, with the current state intact (including any defined telephone numbers and keystrings).
- Special features to enhance MEX-to-MEX connections.
- Support for all CCP commands (rename, erase, type ...) extended to include ZCPR2-style drive/user specifications.
- Patch file allows many default options to be modified.

MBYE35.LBR contains the source (8080 assembly language), object (BYE.COM) and information file of a program that allows other computers to operate your QX-10 via modems. Some of the applications for this program include allowing you to run your office QX-10 from the comfort and convenience of your home QX-10 and allowing you to operate a BBS (Bulletin Board Program) within the CP/M operating system, since this program is compatible with almost any BBS software. MBYE35 contains many features and supports many types of modems (except the CR-103), and users who are familiar with editing assembly language files should have no trouble configuring MBYE35 to their specific application.

If you know nothing about CP/M editors or word processors, let alone assembly language, then you may be pleased to know that we have included a configuration of MBYE35 that is already assembled and ready to run. BYE.COM, when initialized with a Hayes 1200 or clone, will allow you or your associates to call your QX-10. BYE asks for a password which is changeable, and if the password matches, then it permits users access to your QX-10's CP/M operating system, from which you can run any program remotely.

These public domain programs are provided on a quality diskette and the price does include downloading, postage, and handling. **To order the Disk of the Month,** please send a check or money order for $15 to the EpsonConnection, Disk Service Department, P.O. Box 14027, Detroit, MI 48214, Please be sure to indicate the disk order number (EC-12) with your payment.

Disclaimer: All of the programs and documentation on this disk are known to be public domain and no warranties are expressed or implied. There are no guarantees with public domain software. All of the programs have been tested on the Epson QX-10, and are known to run. Public Domain programs are programs written by other users, for public use at little or no charge, other than that for handling, mailing and materials. Remember that Disks of the Month should be treated like any software you obtain - the first thing you should do when you receive your disk is to make a backup copy. Notes: We imply no similarity, or advise any comparison, between public domain software and software that is commercially produced. A beginning knowledge of CP/M is also recommended to utilize this software.

Shoppers Guide

◉ MITE & MITE+

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2615 North Monroe Street
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◉ SYSTAT

QX-10 CP/M

Systat, Inc.
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◉ QX-Express Text Editor

QX-10 CP/M B2.2

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This compact (32K), free-standing word processor easily and quickly handles correspondence and reports...ideally suited as ASCII text editing utility...features six-page capacity and choice of up to 50 modes with Epson printer...fastest QX-10 editor available.

◉ XMASCARD.BAS

QX-10 BASIC

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A correspondence database program. Use your QX-10 to keep a ten - year record of cards sent and received. Store address and other personal data, retreive by name of correspondent. Address envelopes on your printer. Send $20.00 for disk and instructions.

◉ EASYNET

QX-10 CP/M

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A New Frontier

VALDOCS 2 MAIL

by Allen Howell

Had you been using the old Valdocs Mail for your telecommunication needs, you would be pleasantly surprised by all the new features of Valdocs 2 Mail.

The concept of Valdocs mail remains the same, so if you used the older version, you'll quickly and easily adopt most of the new functions. Those of you who are new to telecommunications should consider yourselves fortunate; never has any telecommunications program been so powerful, yet so easy to use.

If you don't understand terms such as "terminal mode", "local mode", "ASCII", and "XMODEM", then perhaps you should read the article called "Basic Concepts of Modeming", which also appears in this issue. It's an introduction to the concepts of modem (or terminal) programs.

Once you press the MAIL key for Valdocs 2, you are actually entering two programs. The primary function of the MAIL module is the telecommunications program. The other function of MAIL is the ability to enter information into an address book. The contents of the address book may be printed onto MAILing labels. This article is going to focus on the telecommunication aspects of Valdocs 2 Mail.

Perhaps the easiest way to get the most from this article and from Valdocs 2 Mail is by the time tested "learning by doing" method. Let's assume that you have your modem and Valdocs 2 Mail ready to go, and that, moreover, you are sitting in front of your QX-10.

Entering your User Identification

Once Valdocs 2 has booted up, press the MAIL key. After a few seconds, you'll get a menu with six options. The first thing you should do is go to the <M>isc. functions, and from there, enter the <U>ser Identification. This is the point at which you enter all of the requested information about yourself. Valdocs 2 Mail uses some of this information whenever you send files (or messages) to other users. As long as you correctly "fill-in" the blanks, other Valdocs 2 users will be able to know who sent them messages (see figure 1).

When you enter your voice & computer number, just enter 7 digit local number, then put your area code on the designated blank space. For the "long distance" prefix, enter a "1", unless you plan on using some long distance service which may require a series of numbers. For the "local dialing" prefix, you need not enter anything unless you work in an office environment where you must first dial "9" (or anything else) to access outside lines. If so, then enter your local dialing prefix. Note that you may enter commas (,) within your telephone number field. Each comma represents a two second delay before dialing the next number.

For your "initial top window", <I>nbasket would be a good choice. This way, whenever you enter your MAIL module, you'll immediately be aware of waiting messages.

Your "New log entries" option should be posted on <T>op. This makes it easier to notice anything new.

Set your "Auto LF w'CR" to <E>nable, and "Alternate SEND menu" to <O>n. The latter gives you more versatility later when you start sending mail to other systems.

The last two settings are utilized when you want your QX-10 to call other systems automatically and to send mail. Later we'll discuss how you can set up your QX-10 to contact

```
Please select a Mail option and then press RETURN.

    <S>end message(s)                <I>n Basket
    <A>ddress Book                   <O>ut Basket
    <P>erson-to-person               <M>iscellaneous

                    < EDIT for EDITOR >                    < 3:
```

Figure 1

```
Please select an item and then press RETURN.

    <C>hange disks                          <U>ser Identification
    <L>og in a different disk drive         <A>ddress book conversion
    <I>nitialize modem

                    < UNDO for prior menu >                  <  3:05 P >
```

Figure 2

another QX-10 and automatically transmit a message, totally unattended. For now, set "Retry sending message" to 9 at increments of 15 minutes. You can change this anytime you wish.

That's it for your user identification. Proceed to store this information, then UNDO until you get back to the main menu.

Entering Host Systems into your Address Book

You should now initialize your address book. This means entering the names and addresses of other QX-10 users, bulletin board systems, and commercial data base systems (CompuServe, The Source, etc.). If you haven't yet initialized your address book, Valdocs will ask you where you wish to store it; either your system disk or data disk. If you have only a handful of names, you may wish to place your address book on the system disk, otherwise, use your data disk.

Enter the <A>dd a name card option. You should now have a blank address card on your screen with a menu at the bottom. Enter whatever you can of the requested information. The last field asks you which mailing list the person should be stored in. You may enter any letter from A-P, or any combination thereof, however, until your list of cards starts growing out of control, you may wish to leave this field blank (see figure 2).

Before you press the STORE key, you have 2 more screens of information to fill in about this system. Press the STYLE key once, and MAIL will take you to the protocol card. For all QX-10 users you plan calling, the most common protocol is <8> data bits, <1> stop bit, and <N>one parity error. Furthermore, most systems use either a 300 or 1200 baud modem, so select the appropriate baud rate for this person. If you aren't sure, select 300 baud. Note that if you plan to call some IBM BBS's, the most common protocol used is <7> data bits, <2> stop bits, and <E>ven parity (see figure 3).

The remainder of the screen most [illegible] not have to be changed. [illegible] the system is a QX-10 in [illegible] section

```
                              User Identification

Your name  . . . . . . . . . : EpsonConnection,_Ltd.____
Your voice phone number  . . : 822-0090_______________
Your computer phone number . : 823-1425_______________
Current Area Code  . . . . . : 313
Long distance prefix/suffix: 1_____________________
Local dialing prefix/suffix: _____________
Pulse or Tone Dialing  . . . : <T>one   <P>ulse
Initial top window . . . . . : <N>othing    <A>ddress book   <U>ser ID
                               <I>nbasket   <O>utbasket
New log entries should be  . : <T>op   <B>ottom
Auto LF w/CR in Answer mode: <E>nable   <D>isable
Alternate SEND menu  . . . . : <O>ff   <O>n    (in person-to-person mode)
Retry sending message  . . . : 9 times if send fails.
Try sending every (HH:MM)  . : 00:15

   Use arrow keys to move the cursor.
   Press RETURN to select an item.
   Press STORE to save changes.
   Press UNDO to cancel changes.

                    < UNDO for prior menu >                  <  3:09 P >
```

Figure 3

the Valdocs Host mode, then you'll want to set "Valdocs system" to <Y>es. The last two fields (NEW LINE DELAY and TEXT DELAY) are utilized only if you plan to send ASCII files or messages to the host system. These two settings slow down the speed at which your QX-10 will send ASCII files to the host. You probably won't need to change the setting unless you send ASCII files or if the host system can't receive the information as fast as the QX-10 sends it. Next, press the STYLE key once again, and the system will display the "log card". If you are setting your card up for a BBS or commercial data base system, you can enter your log in procedure here, then Valdocs will automatically log onto the system when you call. If you decide to use this feature, first you must consider the necessary input that the host system will be expecting, and the appropriate timing. For most of the EpsonNet RBBS/RTPM systems, you might enter eight one second delays, then a couple of k's (RBBS abort codes), then a RETURN, then a few more 1 second delays, then your log in code. The entire sequence may look something like this:

```
OOOOOOOOkk <CR>
OO ALLEN;HOWELL;BANANA <CR>
```

The <CR>'s represent where you would press the LINE key, and the O's where you'd press the WORD key. Also, no spaces are necessary when entering your log in procedure (unless your log in code requires it) and are only shown in the example for clarity.

Just as you can enter your log in procedure, you may also enter your LOG OFF procedure. Since log off procedures usually aren't as time consuming as log in procedures, this feature probably isn't as useful, however, it is there if you wish to use it. The most common log off procedure is simply to enter BYE <CR> on the host system. When you wish to implement the log off procedure, press your STOP key, then select the option to perform the log off procedure, then MAIL will automatically send the contents of your log off procedure to the host system. Enter address cards for all of the systems you plan on calling with Valdocs Mail.

Calling a Host System via Valdocs Address Cards

Once you have entered your User Identification and have entered a few address cards, you are ready to place a telephone call. From the main Valdocs Mail menu (see figure 4) select the <P>erson-to-person option. Valdocs will then ask how and what type of call you wish to make. Select the option for <D>ial a number from card. Valdocs will then ask you to enter the last name of the user (or system) you wish to call. You

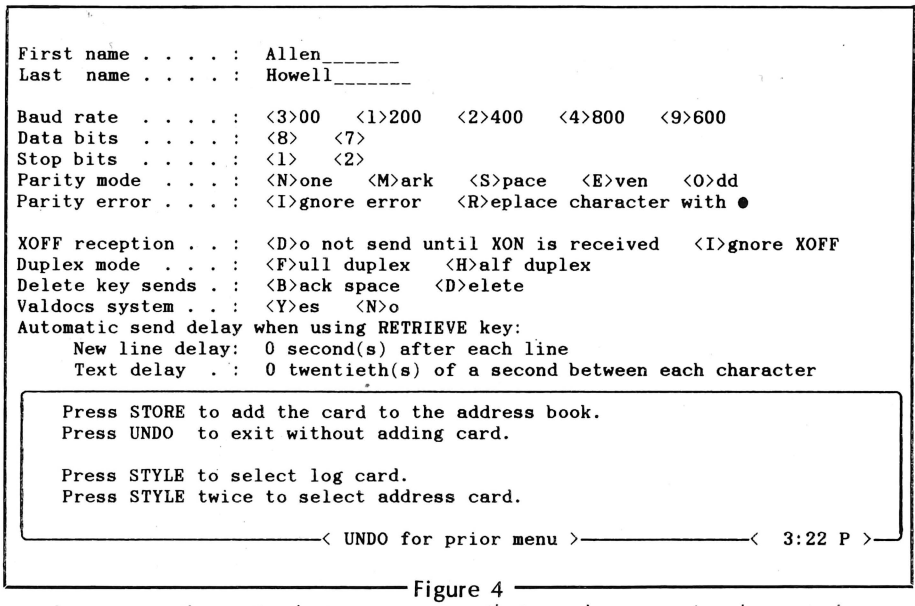
First name . . . . : Allen_____
Last name . . . . : Howell_____
Baud rate . . . . : <3>00 <1>200 <2>400 <4>800 <9>600
Data bits . . . . : <8> <7>
Stop bits . . . . : <1> <2>
Parity mode . . . : <N>one <M>ark <S>pace <E>ven <O>dd
Parity error . . . : <I>gnore error <R>eplace character with ●
XOFF reception . . : <D>o not send until XON is received <I>gnore XOFF
Duplex mode . . . : <F>ull duplex <H>alf duplex
Delete key sends . : <B>ack space <D>elete
Valdocs system . . : <Y>es <N>o
Automatic send delay when using RETRIEVE key:
New line delay: 0 second(s) after each line
Text delay . : 0 twentieth(s) of a second between each character
Press STORE to add the card to the address book.
Press UNDO to exit without adding card.
Press STYLE to select log card.
Press STYLE twice to select address card.
< UNDO for prior menu >
< 3:22 P >

Figure 4

need not enter the entire last name, only enough characters for Valdocs to easily distinguish exactly whom you wish to call. Valdocs will then retrieve the address card of the system you wish to call and ask you to confirm if it's the correct one. If so, enter <Y>es, and Valdocs will proceed to dial and connect up with the host system (assuming the host is not busy and is on-line). If you entered a LOG IN procedure for this system, then you can just sit back and watch as your computer automatically logs you into the host system. If you wish to abort the auto-log in procedure while it is active, simply press the UNDO key.

Once you are on-line, there are several functions that you may initiate from your computer. You may wish to print to your printer all of the information that is displayed on your screen. To do this, press the PRINT key. Now all the information from the host is displayed on your printer as well as your screen. To turn the printer off, just press PRINT again. Notice the "P" at the bottom left of your screen. This "P" will always appear when the printer is toggled on.

If you don't want to waste all of that printer paper, you may also record your sessions directly onto your floppy disk. Just press your STORE key to toggle your session recording on and off. This feature is perhaps more practical than using your printer since you can edit and re-print as many copies of the session as you wish. Notice the "F" and the "S" characters that are displayed when the "session recording" is enabled. The "F" indicates that you have a File of a session recording, and the "S" that all information is currently being Stored. If you press STORE again, the "S" will disappear and the "F" will remain, which means that you have previously started a session recording but recording is not currently enabled.

XMODEM File Transfers

Assuming that you are still on-line with a BBS system, you may now wish to download a program. Select a program you wish to download from the host, then use the host's system transfer program, (usually XMODEM). Once the host is ready to send, press UNDO on your system, and select the option to <R>eceive a message. At that point, both systems will synchronize and proceed to send you the program (message or file). Notice the numbers at the lower left corner of your screen. The number that keeps incrementing in value is the record number of the file that is being transmitted, and the constant number that is to the right, is the total number of records that are contained within the file. This acts as a gauge, and allows you to estimate when the transfer process will be complete. When transmission is complete, select "<T>alk with Person" to re-establish your communications with the host system.

The procedure to send a file to the host is basically the same. Once you inform the host to prepare to receive a file, press UNDO on your computer, and select the option to "<S>end message". Valdocs will then ask if the file you wish to send is an indexed, or non-indexed file. If you created the file with Valdocs then most likely it is an indexed file, otherwise, select non-indexed. Now select or enter the name of the file to send, then Valdocs will proceed to send the file to the host system.

Another way to send files via XMODEM protocol is to press the INDEX key after you have prepared the host to receive a file. If you turned your "Alternate SEND menu" <O>n from your User Identification setup, then Valdocs will display several extra options for you to choose from. From this menu you may choose any of several courses of action: you may send a file just as you did when you pressed UNDO; you may <S>end Message; or you may prepare your system to send other files to other systems, even while you are currently connected to a host.

Sending ASCII Files to the Host

Let's assume that you have just finished creating a public domain program, or that you have some hardware to sell, and you want to announce your merchandise on several BBS systems. Since manually entering the same message on several BBS's would be both time-consuming and costly (if long distance), you could pre-write the message with your Valdocs editor while off line, then call the systems in which you wish to leave the message, and automatically transfer the message from your Valdocs editor to the BBS's message base.

To do this, first disconnect from any host system you may be connected to, then enter your Valdocs editor. Do NOT use any of the Valdocs typestyle keys when

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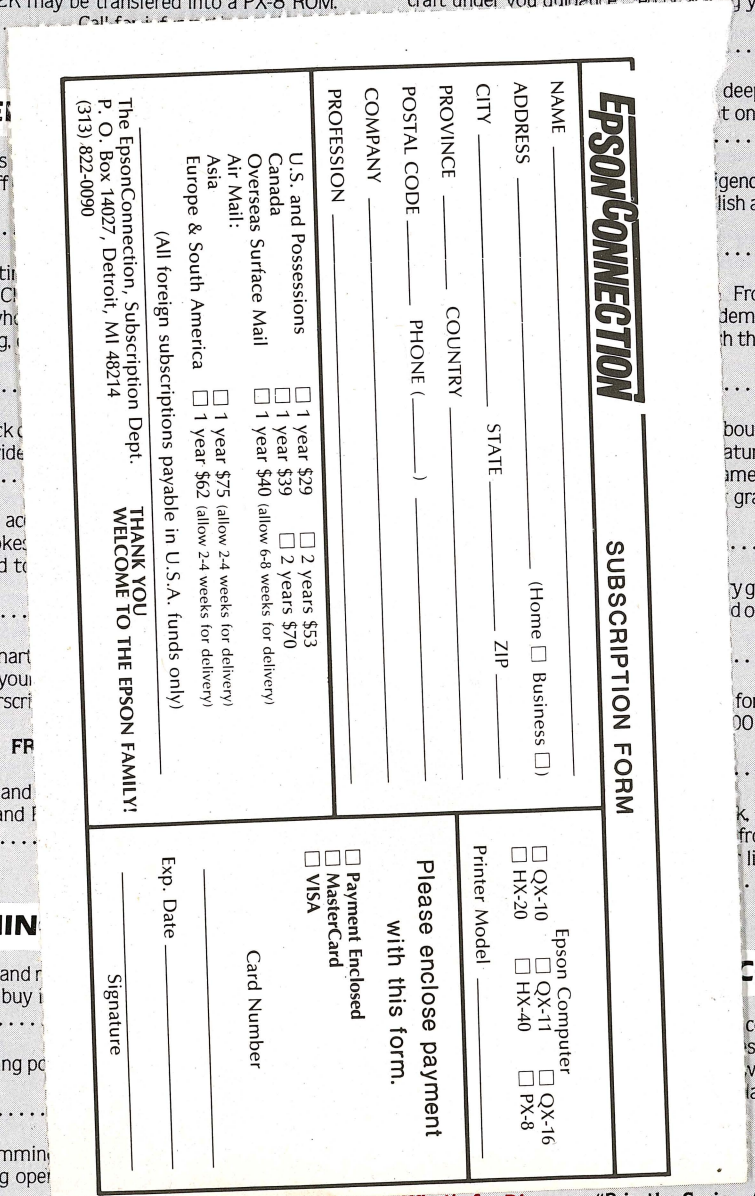

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creating your message, as only ASCII characters may be used. Also, try to keep your message as short as possible, about 20 lines or so. Many BBS's have a limit as to how many lines you can enter into a message, but rarely is this limit fewer than 20 lines. Some BBS systems will automatically "word-wrap" words as they come to the end of a line, so to be safe, do not create any lines that are longer than 60 characters. Also, pre-set your Valdocs left margin to zero, and to single line spacing. Be sure that there are no blank lines in your message, as many BBS systems recognize a blank line as an "end-of-message" marker.

Once your message has been created, store it as a Valdocs indexed document (just press STORE), then return to MAIL. Proceed to call the BBS's to which you plan on sending the message. After you have informed the BBS that you wish to enter a message and after you have entered the "header" info (to, subject, password, etc), you are ready to send the message. Press your RETRIEVE key, and select the option to send an indexed file. After selecting the appropriate file, Valdocs Mail will automatically send the message to the host BBS. When the transmission has been completed, enter the command to list the message that you just entered on the host system. If all looks well, proceed to save the message. Done.

If the message is missing characters, or parts of lines, you'll have to slow down the speed at which Valdocs sends the message. Remember the "Line Feed Delay" and "Character Delay" options that were available when you created the address cards? You will have to edit the card of the system that is not properly receiving the message and increase the delays. If the message you sent is missing characters at random, then you should increase the "Character Delay" a notch or two. If the message is missing the first few characters or words from the beginning of some of the lines, then increase your "Line Feed Delay". After you have changed the delays, try re-sending the message. You should notice that Valdocs will send the message at a slower rate, which is what you intended to accomplish. If the message is still missing characters, increase the delays again until the message has been received correctly by the host system.

Setting Up Your System to Receive Calls

Just as you can call other systems, you can also set up your QX-10 to receive calls. Although Valdocs does not allow BBS type operations, it will allow other callers to "chat" with you, and allow them to send files to you.

Before you can set up your QX-10 to receive telephone calls, enter your SETUP program via MENU. Enter the <C>ommunications options. First, select the type of modem you are using. If you are using a Hayes, set your dip switches as follows: U U D U D U U D. If you are using a CR-103 modem, be sure to install your modem in slot # 5, otherwise, it may not work correctly.

Obviously, you have a modem, so enter <Y>es for Modem Installed. Set your Duplex Mode to <F>ull, and your baud rate to whatever is the maximum baud rate your modem can handle.

Set the Data Bits to <8>, Stop Bits to <1>, and Parity to <N>one. If you set your Background Answer to <E>nable, other users may call your system even while you're using other functions of Valdocs, otherwise, your system must always be in the MAIL module in order that your system might receive incoming calls. If you set the Auto Answer Text Mode to <O>n, your system will allow callers to enter messages to you manually, as well as via <S>end message. Set the Auto Answer Count to 1, as this is the most common setting.

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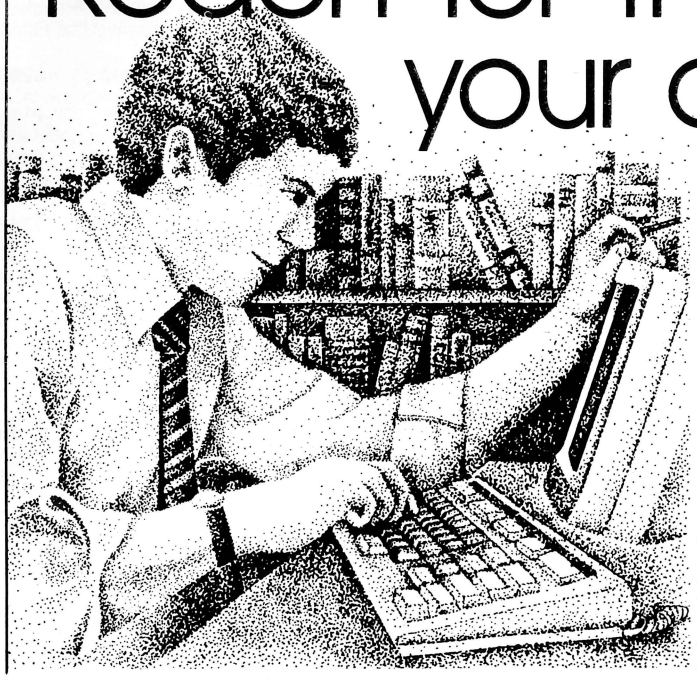

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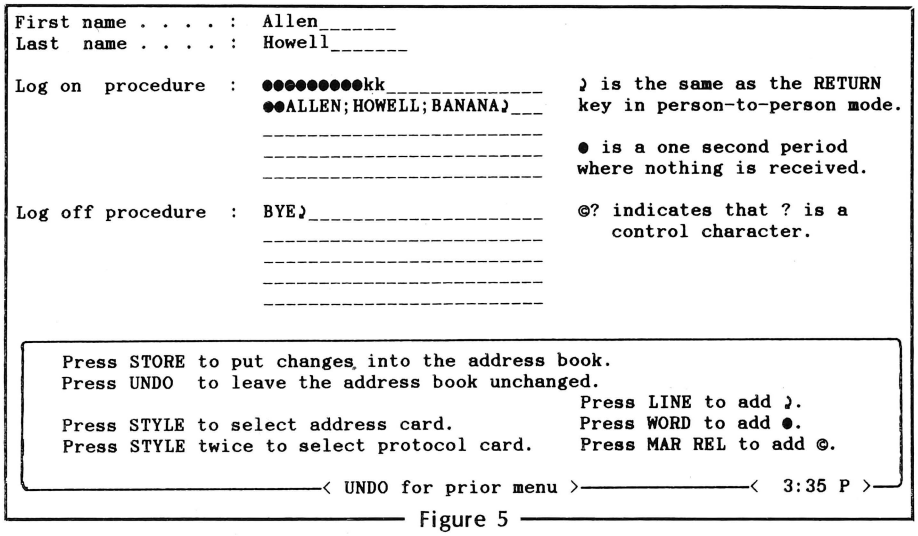
First name . . . . : Allen_____
Last name . . . . : Howell_____
Log on procedure : ●●●●●●●●●kk_____
●●ALLEN;HOWELL;BANANA♪___
♪ is the same as the RETURN key in person-to-person mode.
● is a one second period where nothing is received.
Log off procedure : BYE♪_____
©? indicates that ? is a control character.
Press STORE to put changes into the address book.
Press UNDO to leave the address book unchanged.
Press STYLE to select address card.
Press STYLE twice to select protocol card.
Press LINE to add ♪.
Press WORD to add ●.
Press MAR REL to add ©.
< UNDO for prior menu >
< 3:35 P >

Figure 5

STORE this configuration and return to the Valdocs editor. If there is an "M" directly to the right of your clock display, then Valdocs Mail is now ready to accept incoming calls, and can receive calls no matter what Valdocs module is currently in use. If another user were to call your system while you were in the editor, your system would answer the phone, but until you enter the MAIL module, the calling party could do nothing. So, be sure to enter the MAIL module if someone calls, and when you are finished using your QX-10 for the day, but wish it to remain available to other callers, don't forget to leave your system in the MAIL module.

If you wish to instantly disable other callers from calling your system, unless your system is in the MAIL module, simply press <CTRL> MAIL. This will toggle the "M" to the right of the clock on and off. Again, whenever the "M" is present, other users may call your system and your system will answer, but the calling party will be put on "hold" until you enter the MAIL module. If the "M" is not present, then your system will receive incoming calls only when your system is in the MAIL module.

Once another user has called your system, there are two possible courses of events. The calling party may simply wish to "chat", or may want to send you a message. If the caller wishes to send a file, no operator intervention is necessary on your part, as Valdocs can interpret if the caller is sending a message, and if so, take care of operating your system by itself (as long as the caller is calling via Valdocs Mail). If the user wishes to "chat", then you must interrupt the system by entering the <P>erson-to-person option from MAIL's main menu.

If you set your <A>uto Answer Text Mode to <O>n in the SETUP program, then users who call your system may manually enter messages to your system, otherwise, they must <S>end Messages via Valdocs.

All messages that are sent to you are automatically stored in your <I>nbasket. To manipulate these messages, select <I>nbasket, and then <V>iew the messages. Inbasket also gives you options to store the messages to disk and delete the messages.

Automatic Message Sending

If your professional associates own QX-10's, then the automatic message sending feature of Valdocs Mail might be particularly useful. You can pre-set your Valdocs mail to send files to other QX-10's for any date or time, and when the system time matches the "time-to-send", your QX-10 will automatically contact a given QX-10 (that system must be in Valdocs Mail mode) and send the file, then promptly disconnect. The point of this is that lengthy files may be transmitted at a time of day or night when telephone rates are low.

To enable this automatic message sending feature, go to the main MAIL menu, enter the option to <S>end message. MAIL will then ask to whom the document is to be sent, and then prompt you to enter the time and date at which the document is to be sent. Once that is entered, MAIL will ask you if the document to be sent is an indexed or non-indexed file. Select the appropriate choice, then select or enter the actual file to be sent. MAIL will then ask if you wish to send another document to the addressee, and if so, it will allow you to select another document to send.

Once you have completed entering your "Send Message" information, you may still use your system normally, however, when the time arrives for the first automatic call, your system MUST be in the MAIL module. If it isn't, Valdocs Mail will not send your document.

There are a couple of quirks in the 'Auto Send' function. The "Auto LOG IN" procedure function does not work, which is unfortunate because documents cannot be sent to non-Epson BBS's or commercial data bases. Only other QX-10's that are ready to receive calls and running in Valdocs Mail can receive documents while both (caller and host) computers are unattended.

Another quirk of the "Auto Send" is that you cannot abort while the system is trying to send a message. Pressing UNDO responds with "Working...please wait", but the system just hangs until UNDO is pressed again. The only way to abort the transmission is by pressing STOP, which disconnects the phone.

In Closing

Consider this problem: your system is in MAIL mode and your telephone rings; how are you to know if it's a voice call or computer call? To get around this problem you might install a 'separate' line, but in many instances this is impractical. A 'ring-back' mode, which is common among many BBS operators, would be a useful aspect of Valdocs 2 Mail.

This "ring-back" mode assumes that all incoming calls are voice calls, but if a computer user wishes to call, he allows the host phone to ring only once, hangs up, then immediately calls back. Upon reception of the second call, the host computer knows that this call is for it (because of the previous "one-ringer" call) and automatically answers the phone.

Another feature that would be nice would be the ability on part of the host system to execute a program, other than Valdocs Mail, upon carrier reception. This would give users who have QX-10's both at home and office the ability to call their office computer from home and execute programs at a distance. A feature such as this would make it much easier to setup a BBS type message base.

We also tested Valdocs 2 Mail with a USR Courier 2400 baud modem, and unfortunately, Valdocs Mail will not accept incoming data at this speed. Valdocs Mail seems to slow down the transfer rate to that of about 1200 baud. Fortunately, file transfers are processed at 2400 baud.

QX-10 users who still hesitate to explore the depths of TPM or CP/M will undoubtedly benefit the most from Valdocs 2 Mail. Valdocs 2 Mail is powerful, perhaps more so, than commercial modem programs that cost over $200.00, and Valdocs 2 Mail is certainly easy to use.

A Session With The Pro

by Bill Howey

SPEC SPOT

Product: Prometheus Pro-Modem 1200
Type: 300/1200 Hayes compatable intelligent modem.
Price: $495.00 / Options Processor $99.00 / Memory..16K $39.00 / Alphanumeric display $99.00
Ease of Use: Excellent
Performance: Clean
Documentation: Above average.
Summary: A 300/1200 Auto dial/redial/auto answer modem which is a perfect complement to Valdocs 2. Discount pricing puts this well within the reach of most budgets.
Manufacturer:
Prometheus Products Inc.
45277 Fremont Blvd.
Fremont, CA 94538

Prometheus Products Inc. states that the Pro-modem, "Offers the best price performance ratio of any modem in the marketplace today." A tall statement for a company which only started to advertise their products this past year.

Was this advertising hype, or had the market place finally found a medium price modem which defines "state of the art" and true value for the money? More importantly was this a modem that would be comfortable with MODEM.COM as well as Valdocs. The answers came quickly as we unpacked the modem and settled down with a cup of coffee and the very informative instruction manual.

FEATURES

This Microprocessor based LSI (Large scale integrated chip), Bell 212A/103 (300 - 1200 Baud) modem is HAYES command set compatible. This means that the same codes that are used on the Hayes modem can be used with the Pro-Modem in most cases. An extensive set of English guage response codes (see figure built into the Pro-Modem so mmand differences may be . The Pro-Modem also u of 33 commands nt in the on microprocessor (see figure 2). This is a convenient feature.

Eight alpha/numeric LED status lights compliment the English language response codes. This may be somewhat confusing to the first time user or someone who has had a modem with a single off/on/transmit indicator. In use they become valuable tools when it appears that something is not right with a connection. Additional space is provided for the installation of a 12 digit alpha/numeric display module which is able to show phone numbers, duration of connection, operating status, diagnostic messages and time of day. A real time clock is built into the Pro-Modem which will keep track of date and time. Without the OPTIONS PROCESSOR (extra) this must be reset every time the modem is turned on.

VERBAL RESULTS CODES

NO DIAL TONE
NO RESPONSE TO DIAL
DIAL COMPLETE
BUSY DETECTED
CONNECT
NO CARRIER
CONNECT 1200
DISCONNECT
BUSY WILL RETRY IN 30 SECONDS...

Figure 1

The built in speaker with manual volume control can be turned off/on, or on only during dialing, using the proper register codes while in the terminal mode.

The Pro-Modem 1200 is a little larger than most modems in its category. This is due to having the power supply built in and space for the optional processor board. The front panel is on a 45 degree slant which makes reading the displays much easier.

One of the most interesting features of the Pro-Modem is the ability to RE-DIAL a number when the modem encounters a busy signal. Prometheus calls it "programmable intelligent dialing". If a busy signal is encountered then the modem will hang up, send a message to the terminal that the line was busy and try again in 30 seconds. The auto dialer under the Options Processor can store telephone numbers using a 12 digit name code. These numbers can be dialed in any combination of tone or pulse dialing. Delays can be programmed into the phone numbers to accommodate services such as MCI and SPRINT.

Another unique feature is an expandable buffer (to 64K) which will store a document for transmission at a specified time. This buffer is also used to receive data from another terminal even if the computer is turned off.

INSTALLATION

We tested the Pro-Modem by installing it on the EpSource, Epson BBS which operates 24 hours a day. Installation was a breeze, the manual is clear and goes to great lengths explaining how to set the dip switches. If there was any error detected it would be the setting for switch 3 (response codes) for the Epson QX-10. Settings for the QX-16

MAJOR COMMAND DIRECTORY

A - ANSWER PHONE & CONNECT
Dn - DIAL, n = PHONE NUMBER
Ha - HOOK
DURING DIAL
  a = 0: HANG UP
  a = 1: GO OFF HOOK
Mn - SPEAKER CONTROL
  n = 0: OFF
  n = 1: ON TILL CONNECT
  n = 2: ALWAYS ON
O - RETURN TO ONLINE
R - REVERSE CONNECT MODE
W - WAIT FOR DIAL TONE
Z - RESET

Figure 2

are the same. This switch should be set to OFF in order to gain the maximum use of the very fine English language response codes supported by the Pro-Modem.

ERROR

The Pro-Modem performed admirably during the 60 days that it was in-service on the BBS. It never failed to properly detect the incoming Baud rate and we never received a complaint of poor transmission caused by the modem. This means that the modems ability to discriminate between telephone line noise and data being sent is excellent. Other modems we had used did not exhibit the same clean and almost error-free transmissions we observed with the Pro-Modem.

OPTIONS PROCESSOR AND DIGITAL DISPLAY OPTIONS

The Options Processor and Digital Display create a modem which redefines intelligent modems for the medium priced market. Here is a modem which, when combined with a small entry TERM program, is capable of handling all file transfers between computers without intervention of the user. Ultimately this means that a user could complete a document or several documents, dump them to the Options Processor (up to 64K) and instruct the Pro-Modem to transmit them after 12 midnight to one or several computers by giving it a group command. This may be accomplished with the computer turned off.

The Pro-Modem also supports a somewhat crude but effective hand shaking protocol, WRU, which will allow it to receive messages (up to 64K or about 30 pages of text) in a "stand alone" state (computer turned off) or while the user is processing other documents.

When a message is received by the Pro-Modem, the display indicates this with "MESSAGE BUFF" prominently displayed in the upper right hand corner of the display panel. The command AT@BI will display all of the messages received and these can either be dumped to disk or erased from memory.

Installation of the Options Processor and the display unit is well documented and easy to do. Prometheus Products has been shipping the Pro-Modem with one of two versions of the alpha/numeric display, a full display card or a half display card. If the full display is encountered then the LED display modules have to be transferred to the full display board. If the half display is encountered, its ribbon connector must be plugged into the Options Processor and the panel screwed into place.

There are 7 categories of commands with the Options Processor installed:

- Automatic answering
- Basic commands
- Buffering commands
- Clock commands
- Dialing commands
- Directory commands
- Operations commands

I suggest that you study the manual carefully then rename those commands which you will be using regularly such as the buffering and directory commands. PFK.COM, which is supplied with CP/M 2.25 for the QX-10 and CP/M 2.26 for the QX-16 used in conjunction with USERPFK.LBR, a program that was written by Mark Bergman of EPSON, (available on the EpSource BBS or the EpsonConnection BBS), makes this task easy.

DOCUMENTATION

The instruction manual and installation guide for the Pro-Modem is one of the best we have ever seen. This 72 page document leads the first time user through the installation with an understanding rarely seen in the computer industry. It even has a special section which describes the communications process in simple language which will please even the computerphobe. Some of the more popular communications programs are described along with the proper settings for use with the Pro-Modem.

For those who want to learn more, a bibliography of books on communications from electronic Bulletin Boards to sophisticated business data networks are listed. The 7 page index is a welcome addition which most manufacturers ignore.

On the other hand, with the exception of the excellent installation section, the operating guide for the Options Processor is cumbersome and difficult to use. All of the information is available, it's just difficult to pin down in a document that constantly refers to another manual. I was told by the Prometheus Technical Service department that a new manual is in the works. They are aware that their first effort on this manual was far short of the mark.

SUPPORT

Customer support is very good although there is as yet no 800 number. During the 90 day test period we called Prometheus with several hypothetical problems. Someone was always available to answer our questions.

COMPATIBILITY

The Pro-Modem is Hayes compatible and appears to be compatible with all computers. The only communications software that seems to give it trouble is Crosstalk by Microstuff. We have had a number of calls on this product with other modems and computers so I do not consider incompatibility with this one software product a flaw. Valdocs 2 presently supports the Pro-Modem but does not yet support the Options Processor. There are ways to use some of the Options Processor features within Valdocs 2 but I would prefer to wait until Epson, RSI and Prometheus correct the problem. As of this writing the three organizations were in communication about this.

SUMMARY

Prometheus Products has lived up to their claim of best price performance ratio. This is a powerful modem which delivers what is promised and is expandable to suit the needs of the most demanding user. ■

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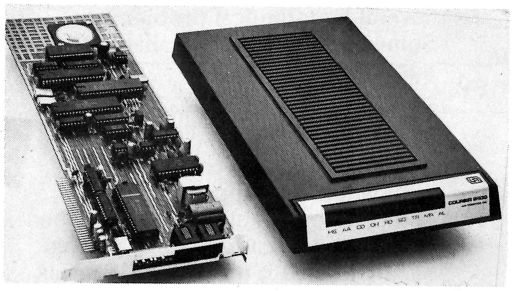

Courier 2400 Baud Sets The Pace

by Ron Spatafora

Product: U.S. Robotics Courier 2400 Modem.
Type: Async 2400 baud modem.
Price: $699.00
Ease of Use: Excellent
Performance: Excellent
Documentation: Excellent
Summary: 2400,1200,300 baud async modem (CCITT V.22,BELL 212A-103),fully Hayes AT command compatible, numerous internal, external features, Valdocs, Modem7, QXMODEM fully compatible.
Manufacturer:
U.S. Robotics, Inc.
8100 North McCormick Blvd.
Skokie, IL 60067

I have seen only one review of this particular modem, which is not a reflection on the product but rather an indication of its newness to the telecommunication market. You will be hearing more in the future, as the USR Courier 2400 represents the next wave of high tech, higher speed modems. From the very beginning (unpacking it from it's shipper) one gets the impression that this is one special peripheral and that USR is proud of it. Noticeable is the professional look of the manual, which is bound in a hardcover binder with side jackets. The modem itself gives you the distinct feeling that although you've never before seen it, there's something strikingly familiar. There is good reason for this feeling. The case, its lettering, and color, are that of a HP calculator and the external dip switches mimic the originator, Prometheus Promodem 1200. Of course the Courier is 100% Hayes command set compatible. One gets the distinct impression that USR "borrowed" the best features from the industry leaders.

Speed

The Courier is an asynchronous modem capable of 0-300, 1200 and 2400 bps (baud) transmission. It meets Bell 212A/103 - CCITT V.22 standards and will operate in either half or full duplex. The speed is controlled by the modem software through Hayes Smartmodem commands. The unit defaults to full duplex 2400 baud.

Compatibility

The latest problem with 2400 baud modems is compatibility with existing software. Ironically, Hayes altered their registers for their 2400, modem which rendered it no longer compatible with existing 1200 baud RBBS/BYE programs. The Courier 2400 does not exhibit this problem, rather it has the Hayes 2400 command set and maintains the 1200 Hayes compatibility. This has been confirmed on several key software programs (RBBS124A1, BYEIII and TBBS).

Auto-Answer/Dial

The Courier is a Super Smart modem in that it can auto-answer and change speed to match the in bound call, regardless of the caller's speed or the Courier's present setting. Most useful, once again, for the RBBS SYSOP.

The Courier can auto-dial, redial and auto-sense the type of phone service (tone or pulse). You may set the unit at 2400 baud, and call either a 2400 or 1200 system and the Courier will shift speed to accommodate. This does not apply to 300 baud systems; you must command Courier to downshift to 300 baud prior to calling. How about dialing letters?; such as "DIAL ?" You can input the phone letters and the Courier will convert them to the appropriate "numbers". Do you have a need to transfer the computer call, by depressing the "hook" once to tell the telephone center to transfer? Well, you can command the Courier to do that as well. What about those long distance services? Some will put out a tone after you call the network. The Courier will call the network, wait for the secondary tone, input your account number, password, etc., and the number you want to call. Up to 40 characters can be entered as a string command. Want an indication of the call status? You may select the advanced call progress mode and the Courier will indicate a BUSY, NO ANSWER or VOICE response as well as the standard, CONNECT, CONNECT 1200, CONNECT 2400.

Standard Features

Users will find the same basic Hayes command set available, including speaker mode, hook mode, etc. An additional feature is the self-diagnostic command. The Courier can check itself out and report back (via the "Inquiry" command) as to modem status, current settings, duration of last call, RAM test, ROM test, and even give you the 3-digit product code. There's even a LED indicator for the "Analog Loop Test".

The Courier will provide 3 Help screens (a' la Prometheus) upon command: Command Help, S-Register Help and Dial Command Help. These screens and the ever useful Quick-Reference Card, provide the User with answers to most, if not all, questions.

There are 10 User selectable dip switches located, very conveniently, on the bottom of the unit. One need not have the manual, nor reference card handy, since the bottom is imprinted with abundant switch instructions. This is one very impressive feature, switches with full access and co-located instructions. The settings are identical to those of the Hayes - Smartmodem, with the exception of the two additional switches (9 and 10). Switch Nine controls the Escape Code enable/disable (another important feature for SYSOP's). Switch Ten is for future expansion.

Construction

Unlike the Hayes Smartmodem and its "clones", the USR Courier 2400 case is plastic. Some comments have been made comparing its durability to the extruded aluminum used by Hayes, and most other modems. Unless the user plans to use the Courier as a door stop or to shim up a desk, I regard the plastic case as more esthetic and quite durable. The 8 conventional LED indicators (the 9th is for Analog Loop Test,) are located behind a sloped gold panel, which provides optimum viewing from

extreme angles. Two telephone jacks, one for connection to the wall jack and the other to a telephone device, attest to US Robotics' forethought. Well done! Otherwise, the Courier is the same basic size as the Hayes Smartmodem, but half the weight. So much for extruded aluminum.

The Courier 2400 was the first 2400 baud modem available in mass quantities in Dallas. This is no surprise since US Robotics got the jump on the 2400 baud "chips", when most manufactures were debating whether to get into the 2400 baud market (some still are). At $699, with 100% Hayes 300/1200/2400 compatibility and all the other features, one cannot help but be VERY impressed. It's a very well designed "next generation" modem. With 300 baud modems on the market costing $50, is the Courier worth the price difference? One need only remember that 2400 baud is 8 times faster than 300 baud. How many long distance phone calls will it take to make up the difference? Very few! As for 2400 baud communication, well, once you have 2400 baud....1200 is a drag and 300 makes you want to use the mail. ■

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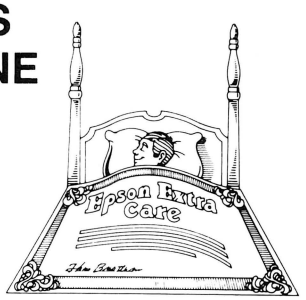

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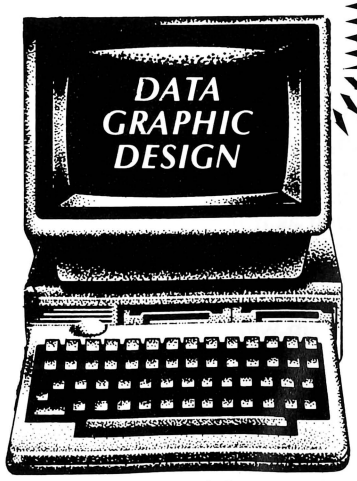

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DEFKEY Makes the Difference

The Valdocs 2

So you bought this computer to use as a tool for writing. It seemed simple enough to use. When you got it home it even slid out of the box easily. There was some confusion at first as to, which square plug was destined for what round hole; you all remember those early hours of joy, fear and stark terror.

Some may even have felt as Columbus must have as they discovered the new world of Valdocs. There was fascinating new territory to explore as shaky fingers tentatively pushed this key and that to find out what it would do (the salesman said it couldn't be broken). Then came the work. It was fun! The creative juices flowed faster than ever possible on a typewriter.

Suddenly, one day everything seemed to slow down. Not because Valdocs 1 was getting slower, but rather because you had begun to concentrate on creativity instead of fear. The time it took to scan from page one to chapter 72, one tedious line at a time reminded one of the agony spent learning the multiplication tables as a child.

Out came the documentation manual, (well, a semblance of one). Lesson one: learn the WordStar Diamond! CONTROL E,S,D,X. (WordStar? If the truth were known, Valdocs uses many of this program's commands). CTRL Z and W were the express elevators able to leap many paragraphs of prose in a single bound. Suddenly Valdocs took on a new personality, SPEED. Minutes turned into seconds and once again users felt as if they were in control. Unfortunately, this was short lived. For some it seemed there just wasn't enough horsepower in the program to keep up with the big boys.

Enter Valdocs 2. Faster than its predecessor by a large margin and almost fast enough to win a race with MicroSoft Word. Valdocs has added some new features which will be welcomed by any serious user of the text editor. The first function we are going to examine is: "CTRL U". This is probably the most interesting, and powerful and will probably be the most misunderstood feature. This is actually a utility built into (but not unique to) Valdocs, designed to redefine keys. Fortunately for the user it exists, otherwise Valdocs 2 (release 1) would be just another integrated program.

Now it is possible to create special, blank, pre-formatted, pages for different typing requirements and call them up with two keystrokes. Single words, paragraphs, and whole documents can be preconfigured and inserted almost instantly. Non-Valdocs programs or utilities can be run from within the text editor with a speed never before possible with Valdocs.

One use of CONTROL U, (DEFKEY.COM) would have a letter "header" (figure 1) and a closing to a letter, all actually entered into a single key file, (a macro). Where a letter started, a CTRL 0 would enter the Header into the letter; when the actual letter was finished a CTRL 1 would add the closing. This is a simple and straight forward approach to speeding up text entry. Names used repeatedly in a novel could always be two keystrokes away.

Unfortunately, in Valdocs, as in all the other integrated Word Processors on the market, definable key functions are limited to a specific character count. In this defkey program, 63 characters per definition or a total of 254 characters per file are available. Because of this limitation we must look at more creative ways for this utility to maximumize the power of Valdocs. This is a relatively easy process. Attention to detail is the only criterion. You must examine and be aware of every keystroke and non-keystroke required for a particular function. Non-keystrokes are default entries. If you press INDEX to see the index of files, INDEX is a keystroke. If you wish to select a document to edit, <S> is considered a non-keystroke or default selection since the cursor is already positioned there. All that is required is a RETURN keystroke. On the other hand, if you should wish to cross reference the files, then <C> must be entered followed by a return. Three specific keystrokes: INDEX, C, RETURN.

With this in mind we are going to build a "boiler plate document", that is, one that we use all the time. Enter into the editor and substitute the information in figure 1 for your own. Add the number of carriage returns necessary to bring the cursor to the desired position on the page.

Figure 1

WILLIAM R. HOWEY
1111 Anywhere Street
Large Town USA, 91030
Phone 212-777-8889

Center it, use bold or the size and style keys to give it some character. Define your margins and then save it with the name "header".

Now enter DEFKEY (CTRL U). On line 0 you will probably find an extra 0. Erase this and enter the keystrokes exactly as shown in figure 2.

(Note: it is possible to substitute a return for entries 5 and six because Valdocs recognizes two RETURNS as a direct command.) This is an undocumented feature.

Update your current definitions, try the new macro to see if it works then save the definitions to disk. If the name line of your header is bold and the subsequent lines are in super script and subscript such as shown in figure one, you have just substituted 2 keystrokes for 83!

One of the most frustrating omissions in the Valdocs program is a feature found standard on any good

Figure 2. Example of a "Header" macro definition.

ENTRY:	1	2	3	4	5	6
KEY:	+/-	RETRIEVE	header	RETURN	+/-	RETRIEVE

Text Editor

by Bill Howey

Figure 3a QX-10

Macro 1

Retrieves last Valdocs file stored, saves it as an ASCII file called "X", clears the rest of the line, and deletes the old file in the process.

```
ENTRY:  1      2        3        4        5     6     7
  KEY:  +/-    INDEX    RETURN   RETURN   CTRL Q  S   RETURN   (cont'd.)

ENTRY:  8      9      10     11       12      13      14     15
  KEY:  A    RETURN   X    CTRL Y     +/-    STORE    +/-   STORE
```

Macro 2

Call up VS.COM through MENU and swap disks in Left drive.

```
ENTRY:  1     2     3      4       5      6
  KEY:  +/-   MENU  R    RETURN  VS     RETURN
```

Macro 3

Tells V-Spell where the file is (B:) and its name ("X").

```
ENTRY:  1      2        3
  KEY:  B:     X      RETURN
```

Macro 4

Return from menu to Edit, change margins to accommodate ASCII file recovery & store the ASCII file under the original Valdocs name. **Note: If using the Brother II keyboard (the one with the EDIT key) change entry #2 from UNDO to EDIT. This shows up as a return.**

```
ENTRY:  1     2       3      4      5     6      7          9      10     11       12
  KEY:  +/-   UNDO    CTRL K   E    RETURN  T    RETURN     CTRL P   L    RETURN   RETURN   (cont'd.)

ENTRY:  13      14     15     16      17     18     19       20   21 22    23     24     25
  KEY:  00.00   RETURN   R    RETURN  07.50  +/-    STORE    CTRL Q R  RETURN   X    RETURN
```

Figure 3b QX-16 / Hard disk

Macro 1

Same as figure 3a, Macro 1.

Macro 2

Call up VS.COM through MENU and swap disks in Left drive. (QX-16: Tells V-SPELL where file is and its name.

QX-16

```
ENTRY:  1     2     3      4       5      6     ¦   7      8      9
  KEY:  +/-   MENU  R    RETURN  VS     RETURN  ¦ (space)  X    RETURN
```

Macro 3

Same as figure 3a, Macro 4.

```
Ctrl-0: ^EHEADER^E
Ctrl-1: ^G^^S^A^X^Y^D^D
Ctrl-2: ^HR^VS^
Ctrl-3: B:X^
Ctrl-4: ^CKE^T^PL^^0.00^R^07.50^DQR^X^
Ctrl-5:
Ctrl-6: ■
Ctrl-7:
Ctrl-8:
Ctrl-9:

STORE to save definitions, HELP for instructions, UNDO for prior menu.
To enter HASCI keys (ie: UNDO) into a definition precede them with the +/- key.
182 characters remain for VALDOCS definitions.
(NOTE: Ctrl-0 thru Ctrl-9 use the numeric keypad only!)
```

text editor today: a spelling checker. In the past it was possible to get a program such as Vspell, by CompuView, to ignore the Valdocs 1 control characters and directly check a text file in TPM under the MENU option. This cannot be done directly under Valdocs 2 because of the structure of the files. V-spell is available configured for Valdocs 1.18/1.19 and may be offered by RSI at some time in the future as an integrated part of Valdocs 2. CompuView's latest release (V-SPELL v.1.06), now features an expanded, 64,000 word, compressed dictionary file of only 153K which is even easier to use.

If, "WORKING PLEASE WAIT", is just too frustrating, and you must have a spelling checker that is fast and reliable, you may want to use V-SPELL anyway, using the following method. Define the keystrokes necessary to save a document automatically in an ASCII buffer file called "X". Define the keystrokes needed to command VSPELL to check this file from Valdocs. Finally, bring the file back to the editor under its original name. The steps are:

First, ZPIP or COPYDISK the following files from your Valdocs disks to your working copy of V-SPELL: TPM.CHN, and RESTART.SYS. This "chains" Valdocs to the program and allows us to create some macros which do most of the work for us. Return to the editor and press CTRL U, current definitions. The specific keystrokes for the QX-10 are shown in figure 3a, (for the QX-16 or hard disk, see figure 3b). Note: there is one more macro required for the stand alone QX-10 than is needed for the QX-16. This is due to the disk swap needed on the QX-10. When all the information has been entered save it to a disk file called DEF.KEY and then update the system from the menu.

The keystrokes do not match what you will see on the screen - a quirk of the program. Once you have the information typed on the screen compare it with the results in the screendump pictured in figure 4.

Continued on following page

WORD LIST

WORD SEARCH

WORD LIST

PROTOCOL
HOST
LOCAL
REMOTE
FRACTALS
INTERACT
QX11
MACRO
XMODEM
LOGON
CONFIGURE
FILTER
DUPLEX
BAUD
PARITY
STOPBITS
RECEIVE
TRANSMIT
BBS
MAIL

X D O R A O J I S T O P B I T S D U H A
P B R I U Y R R U D H J U D S B B J B H
X I U Q B M Q I E X V Q V H K L W C A M
I N P W D L J T H G S K F P L O Q B U D
L P D S I O O T E M Q M R B H C G G D C
P J Y A Z M H R N A M A C R O O L S B S
Y P M W E S U R C X I L L F Q T D C B W
Q Q N R F G G J Z O T N P E R O J O B B
X L R O I J P S Q B E R T A V R G I U X
C Z W F L A C O L B S F N E O P T J N J
K X N Q T Y H Y Z V U S Y I R V X D H A
C O L Y E E M Z G E M R P T U A K X V A
C G X K R X C Q I I L W N Q I K C U B Q
X R W D T Y E X T E V I E C E R Q T K Q
O Z E D D S M L L G J F R A C T A L S L
Q L J S L O L T P J W H V M A B P P O X
D E S J D Q U C S U F C F M M X I G A T
V O H E W J B C U O D 1 1 X Q A O M S T
M E M J V O B O Q P H Q S I X N G C T L
J U L X Z K O V K Q A W J S W D H D M Q

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NEWSTAR

Continued from page 37

It may look like Greek, but it works wonders. Now here is how the macros you created work.

Save your document in Valdocs, name it and STORE it as you normally would. Press CTRL 1 (I am assuming that was the first Defkey entry, being the "header" definition is in CTRL 0). This command will recover the file just saved in Valdocs, and store it as "X", an ASCII file. The next macro command, CTRL 2, calls up menu and requests VS.COM. Valdocs will now request that the proper disk be put in the left drive. Once this is done press RETURN followed by CTRL 3. V-SPELL is now running and checking your file.

You will update the file and EXIT when finished. When MENU appears on the screen replace the V-SPELL diskette with your RUN-TIME or single system diskette and on the QX-10 enter CTRL 4 (or CTRL 2 for the QX-16). This command will reformat your margins to accommodate the extra padding Valdocs put into an ASCII file (this is being corrected by RSI), and recalls file "X" under its original name. Remove the extra returns at the top and bottom of your document while you are going through the final proof check, and add special attributes like bold, and italics as desired.

This is not the best method for checking spelling in a Valdocs document, but until RSI adds a spelling checker, it is a practical way to accomplish the task.

We have had a number of requests for information on how to install a spelling checker on Ashton Tates' "Framework". We will look at that next time along with some insights into future releases of Valdocs.

Note: If you have underlining in your Valdocs 1 files, you will not be able to use this process. Next month we will detail how to use ASC on the utilities disk, to strip your files which valutil will not convert. ■

The EpsonConnection welcomes all reasonable comments or questions concerning the Valdocs 2 Editor series of articles. Please send any correspondence to the Epson Connection, Attn. William Howey. P.O. Box 14027, Detroit, MI 48124.

Correction

In the May issue new products section, Newword Version 2 is priced at $100.00 for the 8-bit version, $249.00 for the 16 bit version. The address is:

NewStar Software, Inc.
1601 Oak Park Blvd.
Pleasant Hill, CA 94523

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Rx for PX

by Bob Hermann

MFU Drive Initialization

With the distribution of the upgraded operating system ROM chip for the PX have come several reports of inability to access the I drive. Mike Morra from Epson East reports that the factory settings for the I drive in the Multi Function Unit are for a 1024x1 (128K) ROM. Since all of the ROMs currently available for use are 256x1 (32K), if you fail to make the appropriate changes to the slide switches inside the unit, any attempt to access the I drive will result in a drive read error. The correct settings for a 32K ROM are SW1 = K and SW2 = B. You must also do a sub-cpu reset before the computer will recognize the I drive. This is accomplished by depressing the red button next to the B and C drive ROMs' in the back of the computer. Lastly, remember that because of copy protection, WordStar and PortaCalc will NOT function in the I drive.

Speed Up Portable WordStar Scrolling

The LCD makes scrolling text with WordStar on the PX a painfully slow process. On larger documents this can be quite annoying. Any placemarkers set are lost when the file is saved. John Davis speeds up the process by placing a page number in the document itself whenever the text starts a new page. By inserting "...X" (where X is a page number), he can use the find feature of WordStar, "^QF ...X" to go quickly to a specific page. If you start at the top of the document and use "^QF .." and then "^L", you may quickly scroll from printed page to printed page.

NSWP Problem

There have been several reports of a problem in squeezing and unsqueezing files from the microcassette drive (drive H) with NSWP.COM. This is probably because the program can not deal with this ·ive. David Kozinn advises that utility ·ograms like NSWP are configured u· ·o 6 drives (A-F). On the PX, ·'· ·r, ·ere are up to nine drives) c ·ider. So the program ·· ignores the command.

·ction

PX-8 Software

The following is a list of soon-to-be-available software products that have been tested by Epson, an independent software testing services, or by both, and are certified as being operational in customized 3 1/2 inch disk versions for use with the PF-10 disk drive. Products will be distributed by SofTeam (800-847-6383).

Program	Version	Company
Accounts Payable	6.00A	Star Software Systems
Accounts Receivable	6.00A	Star Software Systems
General Ledger	5.00A	Star Software Systems
Payroll	2.00A	Star Software Systems
Condor I	20/R	Condor Computor Corp.
Dbase II	2.43	Ashton-Tate
Friday	1.0	Ashton-Tate
Basic Compiler		Microsoft
Cobol Dev. System	3.0	Ryan-McFarland Corporation
Disk Edit	3.0	SuperSoft
Display Manager	1.1	Digital Research
DPatch	2.20	Advanced Micro Techniques
Forth Z-80		SuperSoft
Macro I	2.21	SuperSoft
muLISP/muSTAR	2.15	MicroSoft
muMATH/muSIMP	2.15	SuperSoft
SuperSort	1.60	Micropro International
Tiny Pascal	2.7	SuperSoft
Utilities II	1.1	SuperSoft
Optimizer		SuperSoft
Milestone	1.12	Digital Marketing
Property Management	4.03A	Star Software Systems
CalcStar		Micropro International
Multiplan	1.06	MicroSoft
Scratchpad	2.2	SuperSoft
Model 1040		Success Management
Edit 80		MicroSoft
Electric Webster	5.3	Lexisoft
Mailmerge	3.3	Micropro International
Professional Opts		Micropro International
Punctuation & Style		Oasis Systems
Scribble	1.3	Mark of the Unicorn
Spellstar	3.3	Micropro International
StarIndex		Micropro International
Super Spellguard	2.0	Sorcim/IUS
The Final Word	1.15	Mark of the Unicorn
Word Plus	1.22	Oasis Systems

Modem File Transfer between the PX-8 and Valdocs 2

With the terminal program supplied with the PX-8 (TERM), it is not possible to use either the PX-8's internal modem or XMODEM protocol to communicate with Valdocs 2. It is, however, possible to transfer ASCII files between the two computers. Once you have established communications between the computers, you can exchange files. To do this, place Valdocs 2 in the Mail mode and the PX-8 in the terminal mode. If you need to send or receive files on the Geneva, the SEND or RECEIVE commands can be selected by pressing the corresponding function keys (PF3 and PF4). The computer running Valdocs 2 automatically receives the files and places them in the In Basket.

To send a file to the TERM program on the PX-8, select Retrieve while in the first Mail menu. A menu displays asking you to indicate the file type to send. You may send either indexed or nonindexed files. Any files sent to the PX in this manner must be saved in ASCII format, which requires the experience level of Valdocs to be set at Advanced or higher.

You may also transfer files from Valdocs 2 to the PX-8 with an XMODEM program (EPX740 for an external modem or EPXMD3 for an internal modem on the Geneva). Valdocs and the two XMODEM programs on the PX do handle xmodem transfer slightly differently, however. Valdocs 2 starts counting from block 0, not block 1 as does the standard Christensen protocol. Valdocs 2 goes on to block 1 after trying 3 times to send block 0 (which contains the file name or user name). If problems do occur with Christensen file transfer, then convert the file to ASCII format. The file can then be sent to the Geneva with the Valdocs 2 machine in the Talk-to-another-person mode. To receive a file on the Valdocs 2 computer, you need to use the In Basket option in the Mail module. Select the Receive option from this menu. The file to be received will be recorded automatically in the In Basket.

```
Dial xxxxxxx   ; where xxxxxxx is the appropriate phone no.
Skip 2      ; Connection
Disp No Connection ; If no connection made display will
  ;indicate this
Skip XX     ; Exit - No Connection
#Text 03   ;This sends a Ctrl-C
      Wait 15     ;Wait for user ID prompt
      Skip 1      ;Prompt received
      Skip 11     ;Logon error
      Text xxxxxx,xxx ;Put your CIS ID number here
      Wait 15     ;Wait for password prompt
      Skip 1      ;Prompt received
      Text aaaaaaa+rrrrr ;Put your password here
      #Text 0d   ;This sends a carriage return
      Disp Logon Complete ;Screen will indicate successful logon
      Wait 1      ;One second delay
      Skip 0
      Skip 1      ;Auto logon complete
      Disp Logon Error. Try Manual Logon
      Term
```

Geneva Connection Script

The Geneva Connection telecommunications chip makes use of script files which may be saved on the tape drive. The script can contain sequences for logging onto systems. Andy Fertal uses the following Geneva Connection script to automate logging onto CompuServe.

If the logon sequence fails for any reason, the script will display the message "Logon Error. Try Manual Logon" on the PX's screen, while leaving you in the Terminal mode. If everything goes well, you'll get the "Logon Complete" message. After about 20-30 seconds the user ID and password sequence will scroll by on your screen, leaving you at the opening CompuServe display. This script is for direct connection to the CompuServe network and will have to be modified slightly for access through Telenet or Tymnet. ■

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605-697-6383
6PM - 8AM Mon - Sat
All day Sunday

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612-472-2218
7-10PM Mon-Fri
9AM-10PM Sat-Sun

Leawood (Kansas City), KS
913-642-8479
5PM-8AM Mon-Fri
24 Hrs Weekends

SOUTH CENTRAL STATES

Dallas, Texas
214-881-0313
24 Hrs. 7-days H.D.

Houston, Texas
713-991-4461
24 Hrs. 7-days

*Brownsville, Texas
512-831-3555
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24 Hrs. Sat & Sun

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*Wauwatosa (Milwaukee), WI
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6PM - 12AM M-Sun

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313-823-1425
24 Hrs. 7-Days H.D.

Lake Zurich (Chicago), IL
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Mon-Sat 8PM-11PM

Portage, Indiana
219-762-5620
6PM - 6AM 7days

Indianapolis, Indiana
317-881-3849
8PM - 5AM Sun-Fri
Sat. 8PM - 2PM Sun.

*Aurora, Indiana
812-926-3396
7AM - 7PM Tues-Sun

Greenville (Dayton), Ohio
513-548-3326
6PM - 9AM EST Mon-Fri
1PM Sat - 9AM Mon H.D.

Lancaster (Columbus), Ohio
614-687-6413
24 Hrs. 7-days

NORTH EAST STATES

South Blue Hills, Maine
207-374-2203
6PM - 6AM

on to Portable Communications Chart

by Bob Hermann

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SUBSCRIPTION CARDS

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OS operating systems,
bination

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Rx for PX

by Bob Hermann

MFU Drive Initialization

With the distribution of the upgraded operating system ROM chip for the PX have come several reports of inability to access the I drive. Mike Morra from Epson East reports that the factory settings for the I drive in the Multi Function Unit are for a 1024x1 (128K) ROM. Since all of the ROMs currently available for use are 256x1 (32K), if you fail to make the appropriate changes to the slide switches inside the unit, any attempt to access the I drive will result in a drive read error. The correct settings for a 32K ROM are SW1 = K and SW2 = B. You must also do a sub-cpu reset before the computer will recognize the I drive. This is accomplished by depressing the red button next to the B and C drive ROMs' in the back of the computer. Lastly, remember that because of copy protection, WordStar and PortaCalc will NOT function in the I drive.

Speed Up Portable WordStar Scrolling

The LCD makes scrolling text with WordStar on the PX a painfully slow process. On larger documents this can be quite annoying. Any placemarkers set are lost when the file is saved. John Davis speeds up the process by placing a page number in the document itself whenever the text starts a new page. By inserting "...X" (where X is a page number), he can use the find feature of WordStar, "^QF ...X" to go quickly to a specific page. If you start at the top of the document and use "^QF .." and then "^L", you may quickly scroll from printed page to printed page.

NSWP Problem

There have been several reports of a problem in squeezing and unsqueezing files from the microcassette drive (drive H) with NSWP.COM. This is probably because the program can not deal with this ive. David Kozinn advises that utility ograms like NSWP are configured u to 6 drives (A-F). On the PX, r, here are up to nine drives c ider. So the program ignores the command.

ction

PX-8 Software

The following is a list of soon-to-be-available software products that have been tested by Epson, an independent software testing services, or by both, and are certified as being operational in customized 3 1/2 inch disk versions for use with the PF-10 disk drive. Products will be distributed by SofTeam (800-847-6383).

Program	Version	Company
Accounts Payable	6.00A	Star Software Systems
Accounts Receivable	6.00A	Star Software Systems
General Ledger	5.00A	Star Software Systems
Payroll	2.00A	Star Software Systems
Condor I	20/R	Condor Computor Corp.
Dbase II	2.43	Ashton-Tate
Friday	1.0	Ashton-Tate
Basic Compiler		Microsoft
Cobol Dev. System	3.0	Ryan-McFarland Corporation
Disk Edit	3.0	SuperSoft
Display Manager	1.1	Digital Research
DPatch	2.20	Advanced Micro Techniques
Forth Z-80		SuperSoft
Macro I	2.21	SuperSoft
muLISP/muSTAR	2.15	MicroSoft
muMATH/muSIMP	2.15	SuperSoft
SuperSort	1.60	Micropro International
Tiny Pascal	2.7	SuperSoft
Utilities II	1.1	SuperSoft
Optimizer		SuperSoft
Milestone	1.12	Digital Marketing
Property Management	4.03A	Star Software Systems
CalcStar		Micropro International
Multiplan	1.06	MicroSoft
Scratchpad	2.2	SuperSoft
Model 1040		Success Management
Edit 80		MicroSoft
Electric Webster	5.3	Lexisoft
Mailmerge	3.3	Micropro International
Professional Opts		Micropro International
Punctuation & Style		Oasis Systems
Scribble	1.3	Mark of the Unicorn
Spellstar	3.3	Micropro International
StarIndex		Micropro International
Super Spellguard	2.0	Sorcim/IUS
The Final Word	1.15	Mark of the Unicorn
Word Plus	1.22	Oasis Systems

Modem File Transfer between the PX-8 and Valdocs 2

With the terminal program supplied with the PX-8 (TERM), it is not possible to use either the PX-8's internal modem or XMODEM protocol to communicate with Valdocs 2. It is, however, possible to transfer ASCII files between the two computers. Once you have established communications between the computers, you can exchange files. To do this, place Valdocs 2 in the Mail mode and the PX-8 in the terminal mode. If you need to send or receive files on the Geneva, the SEND or RECEIVE commands can be selected by pressing the corresponding function keys (PF3 and PF4). The computer running Valdocs 2 automatically receives the files and places them in the In Basket.

To send a file to the TERM program on the PX-8, select Retrieve while in the first Mail menu. A menu displays asking you to indicate the file type to send. You m nonindexed PX in this m ASCII forma experience l at Advanced

You may a Valdocs 2 to XMODEM pr external moc internal moc Valdocs and programs or xmodem tra however. Va from block C standard Ch Valdocs 2 gc trying 3 time contains the If problems Christensen the file to A: then be sen Valdocs 2 m Talk-to-anot receive a file computer, y Basket optio Select the R menu. The f recorded au Basket.

```
Dial xxxxxxx  ; whe
Skip 2        ; Connec
Disp No Connection
  ;indicate this
Skip XX       ; Exit - N
#Text 03      ;This sen
      Wait 15     ;Wa
      Skip 1      ;Pro
      Skip 11     ;Log
      Text xxxxxx,xx
      Wait 15     ;Wa
      Skip 1      ;Pro
      Text aaaaaaa+r
      #Text 0d    ;Thi
      Disp Logon Co
      Wait 1      ;On
      Skip 0
      Skip 1      ;Aut
      Disp Logon Err
      Term
```

Geneva Conn

The Gene telecommun of script file the tape driv sequences f Andy Fertal Geneva Con automate lo

If the logc reason, the message "Lo Logon" on t leaving you everything g "Logon Con about 20-30 password se your screen opening Co script is for CompuServ be modified through Tel

Sugarbush, Vermont
802-496-4123
24 Hrs 7-Days H.D.

*Irvington, New York
914-693-0293
24 Hrs 7-Days

EAST CENTRAL STATES

Sussex, New Jersey
201-875-2635
24 Hrs 7-Days

Perry Hall (Baltimore), MD
301-256-8012
8PM - 6AM Mon-Sat

Laurel (Washington), MD
301-490-6843
8-11PM Mon-Fri
10AM - 4PM S - S

West Chester, Pennsylvania
215-692-7502
9PM - 8AM M-Sat.

Harrisburg, Pennsylvania
717-233-1270
24 Hrs 7-Days

Philadelphia, Pennsylvania
215-938-0334
8PM - 8AM M-Sat.
All day Sunday

Vennia (Arlington), Virginia
703-841-1247
Call for hours.

SOUTH EASTERN STATES

Troutman, North Carolina
704-528-6687
7PM Fri-7AM Mon

Watkinsville, Georgia
404-546-0583
24 Hrs. 7-Days

CANADA

Ontario, Canada
416-281-1515
24 Hrs 7-Days

AUSTRALIA

Michael Nobbs
73 Dumaresq St.
Cambelltrown
Australia, 2560

-all boards 300/1200 Baud unless indicated.
-* indicates 300 Baud only
-H.D. indicates Hard Drive

Introduction to Portable Communications Chart

by Bob Hermann

The following chart depicts the characteristics of the communications programs (both commercial and public domain) currently available for the PX-8. I'm sure that after looking over the chart one of the first questions you will ask will be "Which of these programs is the best?" Unfortunately, there is no easy answer to this question. There is no one best program -- really the question is not which is the best, but, rather which one meets YOUR NEEDS the best. This will depend on several factors: your level of computer knowledge; the particular uses for which you desire the program; the amount of time you can or will devote to 'learning' to use the software; the peripherals for the PX you do or don't have; and, of course, on your budget.

All of the programs in the list, with the exception of MODEM2, will work with the PX-8 internal modem. MEX is a 26K file, which means that it will not fit on the RAM drive of an unexpanded PX. The only way that you could use MEX without extra memory would be to use a specially burned ROM, which could be inserted in the B or C drive of the computer.

As you can see, excluding the Geneva Connection, the commercial packages all have more than just communications capabilities; POST PLUS has a word processor, Teledex has both an appointment and address book, and TelMerge offers capability with its IBM counterpart.

As for ease of use (in terms of the telecommunications features only), POST PLUS has a clear edge. I was able to take the POST PLUS ROM out of the package and log-on to CompuServe in less than five minutes. But if you need XMODEM (or binary file transfer) capability, you won't get it with this program. Teledex offers a very useful appointment keeper and handy address book along with its telecommunications capability. And TelMerge has the IBM connection.

As for pure communications capabilities, it's really no contest. MEX is in a class by itself. I think the following passage from a review best sums its abilities: "MEX is the most powerful modem program I've come across. ...the most exciting area is the dynamic ability to change program parameters very easily in real time, and the command line processing with simple command files... All this flexibility is not without its price, however. As is always the case, increased power and flexibility also leads to increased complexity. That's a polite way of saying that MEX is not for the beginner. The array of commands and variables under the control of the operator in real time is more than a little overwhelming at first. Also, there are many people who will never need all the power and flexibility offered. MEX is of the most value to those who need its greatly increased power for atypical uses (main-frame comm, etc,.), or those who will enjoy the use of a 'sports car' and the programming challenge it offers." ■

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PROGRAM/SOURCE	PRICE/MEDIUM/MEMORY REQUIREMENTS	SETTING COMMUNICATIONS PROTOCOLS/USER INTERFACE	WITHIN PROGRAM HELP/FILE, AND DRIVE MANAGEMENT CAPABILITIES	DIALING CAPABILITIES
EPX740.COM Public Domain * Written by Irv Hoff & Christopher Rhodes	20K file. Public Domain	User definable from program with commands Command driven	Yes; listings of current parameter settings and 3 'page' help file listing all commands and a brief description of each. DIR, ERA, and the ability change drives and user areas.	Manual Auto Auto-redial Multiple number (up to 32) Up to two alternate long distance services (MCI SPRINT,etc).
GENEVA CONNECTION Epson America, Inc. 2780 Lomita Blvd. Torrance, CA 90505	$79.00 Distributed on an 8K NMOS ROM, not copy protected. Utility files accompany on microcassette.	User definable from program with commands or 'scripts'. Command driven; may automate with user created 'scripts'.	None None	Manual No direct auto or auto redial capability - the script syntax allows development of automated dialing procedures
MEX (Modem Executive Program) Public Domain * Written by Ron Fowler (modified for the PX by David Kozinn)	26K file. Public Domain	Must be set with CONFIG-like menu from within the program. Command driven, except for setting of communications parameters.	Two levels of help - a very extensive 52K file that would be usable on a PF-10; built in help file giving command list and syntax. DIR, ERA, REN, TYPE, change drive and user areas.	Manual Auto Auto-redial Multiple numbers Provisions for any two alternate long distance services in any one copy of the program.
MODEM2 Public Domain * Written by Ward Christensen (modified for the PX by Charlie Stromm)	6K file. Public Domain	Must be set with CONFIG; may specify baud rate from program. Command driven.	Short help file. None	Manual
POST PLUS MCTell 3 Bala Plaza E Suite 305 Bala Cynwyd, PA 19004	$249.00 Program on 32K CMOS ROM, not copy protected. Utilities on microcassette.	All common parameters set by menu driven commands. May also utilize user created 'macros' to set. Menu driven with option of creating 'macros', to automate program.	Extensive help that may even be user customized.	Manual Auto Auto-redial Answer-back
TELEDEX Ascent, Inc. 1983 Mountain Landings Dr Mountain View, CA 94043	$120.00 to $160.00 Distributed on 32K CMOS ROM, copy protected. (May still use in drive "I")	Set by menu driven commands. Menu driven with option to automate with user created 'commands'.	Directory of logged drive. In the form of error messages. DIR, COPY (single file), REN, DELE (single file).	Manual Auto Auto-redial (by depressing PF3) Provisions for unlimited number of alternate long distance services. May use for voice communications.
TELMERGE MicroPro International 33 San Pablo Ave. San Rafeal, CA 94903 Distributed by Epson [illegible]ca, Inc.)	$139.00 to $159.00 Distributed on 32K CMOS ROM, not copy protected.	Done automatically by TELMERGE.SYS file, which must first be 'personalized' by user. Menu driven (after initial configuration), with capability to create 'scripts'.	None	Auto Auto-redial Unlimited number of alternate long distance services. May use for voice communications.

[illegible]ecti[illegible]

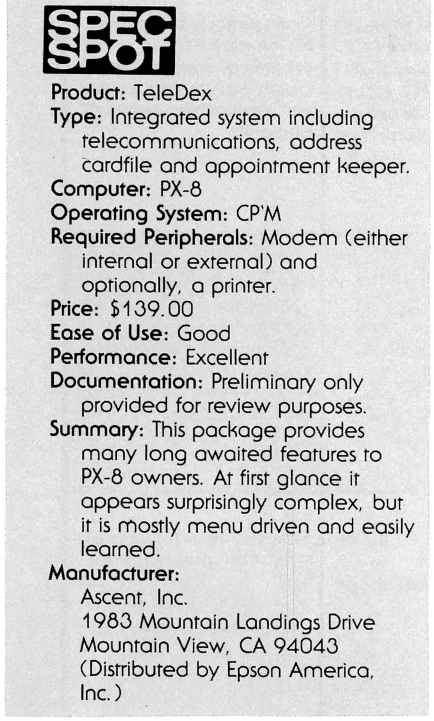
AUTO LOG-ON	BUFFER	FILE TRANSFERS	DOCUMENTATION	OTHER FEATURES
Done with programmable overlays (EPXMD3 does not have this capability).	Storage limited only by disk capacity (24K on an unexpanded PX). May toggle buffer on and off, and save to disk. When drive full, file closed with partial file written to disk.	Protocols: ASCII, XMODEM. Capabilities: Wildcard, multiple.	20K document file. No command reference card (but you may make a hardcopy of the online help). No tutorial. No sample files.	36 number phone library (use special version of M7LIB.COM to edit). 11 programmable function keys for EXP740 only, not EXPMD3 (use special version of MDMFNK to edit).
Must be done with scripts. HELPER file assists development of log-on sequence for CompuServe, The Source, Dow Jones, and standard RBBS's.	Storage limited only by disk capacity. May not toggle on and off - must close one file and open another. When drive full, receive disk write error.	Protocols: ASCII, XMODEM.	104 page manual with command reference card. No tutorial. Few sample files.	Command syntax allows for development of scripts capable of doing most processes automatically. Also will allow for unattended operation.
May develop flexible command scripts to accomplish anything that can be done from the keyboard.	Storage limited only by disk capacity. May toggle on and off and save to disk. When drive full will write partial file to disk and return to Terminal mode; online connection maintained.	Protocols: ASCII. XMODEM, CIS "A". Capabilities: Wildcard, multiple.	76K document file. No command reference card (but you may make a hardcopy of the online help file). No tutorial. No sample files.	Can easily regenerate customized version after configuring program. Programmable function keys. Phone library limited only by disk capacity.
None	None May use CTRL-P to direct output to printer. Storage limited only by disk capacity.	Protocols: XMODEM.	2 pages.	Best feature is the small size of the program itself - 6K.
Sequences for more than a dozen common services provided with program. May also write macros to automate practically any keyboard routine.	Entire communications session automatically saved to COM.LOG file. May chose to add to current file or overwrite it.	Protocols: ASCII; no direct capability for binary file transfer, but utility for converting binary files into HEX (ASCII) files for transfer. Must then have capability at other end to reconvert to binary format.	140 page manual. No command reference card. No tutorial. Sample files provided.	Full fledged word processor with capabilities such as: wordwrap, auto find and replace, block move, split screen, copy, delete, and more. Extensive macro capability. Event timer to automatically carry out any sequence of macros any time, unattended.
May develop 'command' sequences to automate. Command syntax not as versatile as other programs	18K maximum on un-expanded PX. Toggle on and off with function keys. On un-expanded PX, system files require a minimum of 6K, leaving 18K for buffer.	Protocols: ASCII, XMODEM.	110 page manual. No tutorial. No command reference card. No sample files.	Includes full-featured address book, appointment book (with alarm capabilities), and a mini-notepad. Has ability to dial numbers in either address/appt files for computer/voice communications. Automatically converts letters in phone numbers to corresponding digits.
Sequences for seven of the most common services provided with program in the TELMERGE.SYS file. May write scripts to automate practically any keyboard routine	On unexpanded PX, 20K maximum (allowing for 4K TELMERGE.SYS file). Toggle on and off with function keys.	Protocols: ASCII, CIS "A"	105 page manual. Command reference card. Tutorial. Sample files.	May use dialing capabilities for computer or voice connections. File transfer compatible with MSDOS TELMERGE in much the same way FILINK is with QXFILINK. Also h[illegible] good command syn[illegible] compatibility be[illegible] these two progra[illegible]

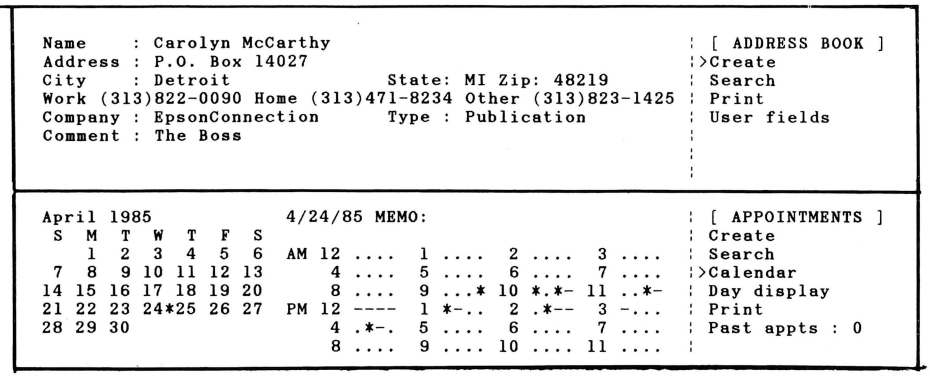
◉ Charges for public domain software may include copying, downloading fees, and distribution or handling charges.

** Copies of public domain programs may be obtained from RBBS's, dealers, EpsOnLine, EC Tape of the Months, and EC Customized ROMS.*

TELEDEX

by Bob Hermann


SPEC SPOT
Product: TeleDex
Type: Integrated system including telecommunications, address cardfile and appointment keeper.
Computer: PX-8
Operating System: CP'M
Required Peripherals: Modem (either internal or external) and optionally, a printer.
Price: $139.00
Ease of Use: Good
Performance: Excellent
Documentation: Preliminary only provided for review purposes.
Summary: This package provides many long awaited features to PX-8 owners. At first glance it appears surprisingly complex, but it is mostly menu driven and easily learned.
Manufacturer:
Ascent, Inc.
1983 Mountain Landings Drive
Mountain View, CA 94043
(Distributed by Epson America, Inc.)


Name : Carolyn McCarthy
Address : P.O. Box 14027
City : Detroit State: MI Zip: 48219
Work (313)822-0090 Home (313)471-8234 Other (313)823-1425
Company : EpsonConnection Type : Publication
Comment : The Boss
[ADDRESS BOOK]
>Create
Search
Print
User fields
April 1985
S M T W T F S
1 2 3 4 5 6
7 8 9 10 11 12 13
14 15 16 17 18 19 20
21 22 23 24*25 26 27
28 29 30
4/24/85 MEMO:
AM 12 .... 1 .... 2 .... 3 ....
4 .... 5 .... 6 .... 7 ....
8 .... 9 ...* 10 *.*- 11 ..*-
PM 12 ---- 1 *-.. 2 .*-- 3 -...
4 .*-. 5 .... 6 .... 7 ....
8 .... 9 .... 10 .... 11 ....
[APPOINTMENTS]
Create
Search
>Calendar
Day display
Print
Past appts : 0

TeleDex is an integrated software package designed especially for use on the PX-8. Distributed on a 32K ROM, the program uses over 30 menus that permit: computer/voice communications, creation of an address book and appointment book complete with alarm capabilities, and even some basic file management functions.

This is an intricate, compact program. Intricate in that, at first, you practically need a road map to follow the menu sequence (a handy diagram in the preliminary documentation details this). However, once you have established a minimum of familiarity with the software, the overall ease of use that the menu system offers becomes quite obvious. The developers have jammed a lot of features into 32K. The appointment book has most of the capabilities of Traveling Software's Appointment Manager, a program which occupies entire 32K ROM by itself.

of the applications except l mode of the ications section, the s the PX's screen into ection

two sections. The right most twenty columns display the menus from which the desired applications option is selected. This then appears in the 'data window' on the remaining portion of the screen. The function keys of the PX have been deftly integrated into the operation of this program. For example, with most computer programs you use the "RETURN" key to tell the computer that you have completed an entry. With TeleDex this is done with the "ACCEPT" key (PF1).

Configuration

TeleDex's opening menu offers six choices. Options are selected by using either the RETURN/TAB or UP/DOWN arrow keys to position the cursor and then pressing ACCEPT. The CONFIGURATION option should be elected first so that TeleDex can properly identify the hardware setup of your system. Failure to do this may cause file corruption.

In the configuration section of TeleDex you may designate phones settings such as: touch/tone, a default area code, whether you want the speaker on or off, a local access number for alternate long distance services, and even an outside line number prefix (if your business requires a special code to access an outside line). You can perform CONFIG-like operations to set up the RS232 port for a printer or modem, to indicate the kind of modem you are using, and whether or not it and/or a printer are connected.

The Address Book

Once the program is set up for your system, its time to explore the features of the program. Figure 1 shows the Address Book 'data display'. In addition to the fields displayed in the figure, you may define four of your own (each up to 48 characters in length). You may also depress the DIAL key (PF2) while in any record in the address book to automatically dial any of the three numbers in that record (or even a fourth, one-time number).

The Address Book may be searched for entries using any field as a key, and wildcards may be used to match any part of a field. The entire file or any one record may be printed; there is no way to print a particular section of the file though, other than manually paging through it individually printing the desired records (with PF5 the Print Screen key). You may have more than one Address Book file or Appointment Book file. The Use option of the file utilities section allows for determination of the particular Address or Appointment Book file you wish to access.

The Appointment Book

You may schedule appointments through 12/31/99. Figure 2 illustrates the calender and day display that you use to view an appointment entry. The appointment schedule for any day is displayed by positioning the cursor on the desired day and hitting the ACCEPT key. An appointment entry is then accessed in a similar manner. Position the cursor on the start of any appointment (indicated by an asterisk on the day display) hit the ACCEPT key, and a display similar to that in figure 2 will be shown. As with the Address Book, any of the phone numbers may be dialed automatically with the Dial key. The comment field is 48 characters long.

If an alarm is desired, the user has a choice of three different types: a simple beep, a continuous beep, or a task alarm for, say, automatically logging onto an information service at a predetermined time. Unlike Traveling Software's Appointment Manager, with TeleDex it is not necessary to reenter the program to initiate a subsequent alarm. TeleDex also allows searching for appointments (with or without wildcards), a feature not included with the Traveling SW program. TeleDex, however, will not automatically inform you of conflicting appointments or allow for automatic rescheduling of appointments, two handy features of the Traveling Software system.

Telecommunications

I may scare a few people by saying that the communications section of TeleDex operates somewhat like the Geneva Connection. Don't run away til I'm finished though. There are no where near the number of commands in TeleDex that there are in the Geneva Connection, and you use these commands mainly for online interactions, not for setting communications parameters (which, as mentioned above, are set in the configuration section of the program). The complete list of commands includes: Look, Send String, Command String, Config, Transfer, Terminal, Wait, and Autoansr (Auto-Answer). Definitions are created from a menu-driven option, with the Command String feature allows the inclusion of several commands into one sequence. This permits customization of the system to your particular needs. The maximum number of definitions TeleDex allows is 32. This system IS easier to use than the Geneva Connection. It is not as flexible though, with the absence of certain features such as character filtering. Although not included with the preliminary documentation used for this evaluation, a tutorial for the telecommunications section is promised.

Both Xmodem and ASCII file transfer are supported. The process is menu driven (either in creating a command to accomplish a transfer or performing the transfer manually). From the transfer menu it is possible to establish an input buffer for capturing ASCII data. Input to the buffer is toggled on and off with the SCRN/INS key. With this feature you may APPEND incoming information to an existing file instead of overwriting a file or creating a new one.

Other Features

While in any part of the program, a convenient little notepad may be accessed by hitting the ESC key. Although it holds a maximum of only about a 160 characters, its instant availability adds a nice touch to the program.

A sequence of about 40 help messages appears whenever an illegal operation is attempted to increase the ease of use of TeleDex. It was noted in the printer setup part of the program, that an attempt to save using the Save Configuration option, produced an error message that is not included in the list in the manual (it is explained in that section of the manual detailing printer setup). Further, if you try to print something and the printer is not hooked up or "online", you must hit CTRL STOP to abort otherwise the program will lock up. Nothing in the documentation mentions this.

TeleDex offers a minimum of file handling capabilities. With the capacity to configure the RS-232 port from within the program, this makes life without the Utility ROM possible. There is, however, no way to determine the amount of memory remaining on a drive until its too late, when you'll be issued a "Disk Full" error message.

This program is long overdue. With TeleDex Ascent has integrated several of the most desirable capabilities possible with the PX-8: portable telecommunications, a portable cardfile type of database, and a portable schedule keeper and all on one ROM chip. It could be better, though (I like to ask for the impossible). A feature to convert Address files into dBase II files and visa versa would be convenient. Also desireable would be the ability to incorporate some type of mailmerge capability in with the Address file and Portable WordStar. Nonetheless, it should be one of the best selling packages for the Geneva, and deservedly so. ■

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HERE'S THE STORY

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SUGGESTED USES

- Offer this software under your company or store name
- A perfect start-up package for dealers
- Customize the packages to solve your unique requirements
- Offer as a low cost option to help close hardware sales
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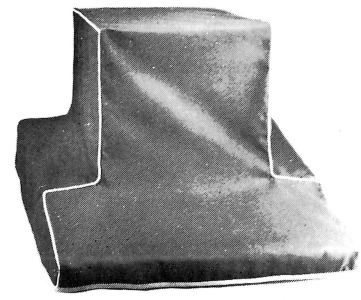

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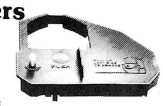

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Portable Communications With The Geneva Connection

by Sherwin Levinson

SPEC SPOT

Product: Geneva Connection
Type: Telecommunications Software
Computer: Epson Geneva/PX-8
Operating system: CP/M
Required Peripherals: None for direct connection to another computer, a modem for remote communications.
Price: $110
Ease of use: Good
Performance: Good
Documentation: Cumbersome, but fairly complete.
Summary: Provides auto log-on and other user-programmable functions through a "script" file. The program is lacking in some features compared to industry standards like Smartcom and Crosstalk, but contains an incredible amount for its small (8K) size. If you need more than the TERM program supplied with the Geneva, this program is worth checking out.
Manufacturer:
Epson America
2780 Lomita Blvd.
Torrance, CA 90505

The Geneva Connection (*GC*) from Epson America is a telecommunications program for their Geneva PX-8 portable computer. The program is distributed in a ROM (read-only memory) cartridge, a medium already familiar to Geneva owners, as Portable Wordstar and Portable Calc, are also in ROM cartridges. Included is a microcassette tape containing a program that helps build "scripts" for use with Geneva Connection and the thick manual typical of Epson products.

Communications program is a [illegible] if you need to transfer [illegible] your computer to [illegible] at a [illegible]te location, but also [illegible] her m[illegible] nine is right next to yours and the two machines do not use the same disk or tape format. While Epson supplies a simple program called TERM with the Geneva, *GC* provides many features beyond those of TERM and can utilize the optional internal modem, which TERM cannot. However, if you need to emulate some terminal other than the Soroc IQ-120 (which the Geneva automatically emulates), then you will need a different communications program.

The Program

Geneva Connection includes a host of features designed to cover most of what you'd need in a communications program -- over thirty commands in all. While there are a few notable shortcomings (mentioned later), the program succeeds in meeting the needs of users who value being able to send a series of characters automatically, which might, for instance, "log on" to a remote computer.

One nice feature is that, unlike the TERM program included with the Geneva, *GC* has a full range of commands for setting communications parameters. Depending on how you use your machine, it could be a big plus not to have to leave the program to change parameters. For example, if you switch back and forth between 300 and 1200 baud communications or between using a modem and connecting directly to another computer, you'll need to change the baud rate and perhaps some of the other settings.

Connecting

GC provides commands to control the Geneva's optional internal modem; unless you have a program that provides these functions, the internal modem is useless. Commands included cover switching between answer and originate mode (in answer mode your modem can accept calls from other modems), dialing the telephone, hanging up the telephone, and setting auto-answer mode, which allows your machine to accept calls automatically. The dialing command is especially well done, it generates the * and tones and allows you to switch in the middle of dialing between pulse and tone dialing. Both these features could be needed with some long distance telephone services.

Transferring Data

Another series of commands relates to transferring data, the essential reason for using a telecommunications program. While the commands for establishing a connection are only needed if you are using the internal modem, this set of functions is needed by all users. The TERMINAL command puts you in an interactive mode where data received are displayed on the Geneva's screen and the codes corresponding to the keys you press are transmitted. This function is standard in any communications program. But, *GC* also includes some commands that are very useful but aren't standard fare. The first of these allows you to substitute one data code for another. It gives you a limited ability to change the characters you send or receive into other ones. For example, some remote computers require an ETX character to indicate the end of a line instead of the more usual carriage return (c/r). The command REPLACE 0D 03 will send an ETX (hexadecimal code 03) every time you press RETURN (code 0D). Unfortunately, only one replace can be in effect at a

time, so if in the same transaction you also need to replace the ETX characters you receive with c/r characters, that can't be done with GC. And, since REPLACE works with both received and sent data, any c/r characters you receive will also be translated into ETX characters.

The other command that allows you to manipulate the data transferred is FILTER. This will allow you to "filter" out a series of characters that you may not wish to receive or send. This command also acts on both received and sent data. So if the system you're receiving from sends unwanted control characters you can use FILTER LOW to filter these out -- they simply won't be received. Unfortunately, FILTER also screens out some of your keyboard input, when you press the RETURN key on your Geneva, nothing will be sent. Because of that, the FILTER LOW option is essentially useless (you can use the TEXT command to send characters that will bypass the filter, but it would be extremely cumbersome to need to enter TEX 0D each time you want to end a line). Other options are FILTER HIGH (screens out all characters with values above hex 7A), FILTER BOTH (filters out high and low), FILTER NONE (shuts off filtering), and FILTER followed by one or two hex characters. This latter form is probably the most useful since it allows you to filter out selectively one or two offending characters without screening out characters you must send.

The other commands related to data transfer allow you to save incoming data in a disk file (INPUT FILE), to transmit a disk file (OUTPUT FILE), and to control whether these operations are performed using X-on/X-off (start/stop) or Christensen (XMODEM) protocol.

Scripts

The real power to make life easier which a communications program can have lies in its ability to perform a pre-recorded series of steps, or a **script**. GC provides this facility, allowing a series of separate scripts to be stored in a single disk file whose size is limited only by disk capacity. In addition to performing a pre-selected series of commands, the first script in the script file is performed automatically when GC is first executed. Thus, you could even set your Geneva to "wake up" and run GC at some specified time to automatically retrieve electronic mail in the middle of the night when connect charges are lowest. Each script is given a unique name and is performed simply by typing its name.

A sample script to perform all the steps necessary to connect to The Source telecomputing system helps illustrate script commands and their use:

```
SCRIpt source
SKIP 1                  ;having the two script commands allows GC
                        ;to recognize both upper and lower case name
SCRIpt SOURCE DISPlay   ==>Source via Uninet<==
PORT int                ;use the internal modem
BAUD 300                ;set the baud rate
BITS 7                  ;choose 7 data bits
STOP 1                  ;1 stop bit
PARIty E                ;even parity
PROTocol X              ;X-on/X-off handshaking
ECHO R                  ;remote echo
SUPPly lf N             ;do not add a line feed when a RETURN is sent
DIAL T 5551212 40 4
SKIP 2                  ;skip two lines if connect successfully
DISPlay   Couldn't connect -- script processing ended.
END
#TEXT 0d 2e 0d          ;send a RETURN, a period, and a RETURN
DISPlay   Logging in... ;then say we're logging in
WAIT 2
SKIP 0
TEXT S10
#TEXt 0d                ;display another period on the screen every now
and then
;to show that we're progressing through the log-in process
#DISplay 2e
WAIT 5
SKIP 0
#DISplay 2e
TEXT ID ABC123 XYZ789
#TEXt 0d DISPlay   done!
#DISplay 0d TERMinal        ;enter terminal mode END
```

So you can, in effect, create your own new commands for GC; these can be any combination of the existing GC commands.

In this example the full command names have been used to make them more understandable, but only the capitalized portions -- the first four letters -- are required. The sample script includes all but three of the commands available for use in scripts. The remaining three -- GET, SET, and IF TEXT -- relate to putting a string of characters into a "test buffer" and then testing to see if that string matches with one you've programmed the script. They can be used for such things as asking which telephone number to use out of a list you've pre-programmed into the script.

The script also illustrates a problem with the way the WAIT command is structured. WAIT will cause the script to pause for the number of seconds given or until characters are received followed by a period during which no data are received. This is supposed to allow the script to wait until a prompt is received from the remote computer. Unfortunately, the timing of how prompts are received can vary so much that the WAIT command really amounts to a simple time delay and not much more. Far more useful would have been a command that waits for a specific string to be received, with some maximum waiting time so the script won't wait forever if that string isn't received. In the script, each WAIT command is followed by a SKIP 0 because WAIT will skip the next line if a prompt isn't received within the specified number of seconds; the SKIP 0 assures that the next command will be executed whether or not the "prompt" was received.

One caution in creating scripts: don't assume that you can use multiple spaces to make the script file look neater. It won't work. Any parameters that a command requires must be separated from the command by only one space; a comment can be anywhere following all the parameters, as long as the comment begins with a semicolon. But a comment that's on a line by itself must have the semicolon in column 1.

There are some other problems in using scripts. Anything received while the script is being processed is held by GC rather than being displayed immediately. It then comes pouring out as fast as the display can handle it if the script puts you in terminal mode. Since the buffer where GC stores this text has a limited capacity, once the buffer is full GC must send an X-off to the other computer to have it stop sending. Data can be lost under these conditions. So, GC would not be suitable for applications where a long series of commands must be sent to the remote system.

A related problem is that, when INPUT FILE is activated, all the everything received since the was activated rather than storing

what's received from that point on. So you have limited control from a script over what's saved to a file. It also appears that once INPUT FILE is activated, none of the commands that follow it in the script will be executed.

Helper Program

For those who've had no experience creating scripts, it can be a confusing and time-consuming process. Even for someone with programming experience or who is familiar with scripts for other programs, learning how to do *GC* scripts can be a real inconvenience.

So Epson has supplied a helper program with *GC* that allows the user to create a customized script by responding to the questions asked by the program. This is a very nice feature: even if the script you create with the help program doesn't meet all your needs, it will give you a good basis to build on.

Documentation

The documentation is fairly lengthy, yet it still doesn't clearly describe all of *GC*'s features. There are a number of areas that are unclear or omitted. For example, the description of the TEXT command doesn't say if a return is automatically sent after the string or not.

The biggest shortcoming of the documentation is the lack of a concise list showing the syntax and permissible options for each command. While there is a quick reference card included with the manual, it only shows the syntax -- such as ECHO x -- without saying what the valid options are for "x" (in this case they're R for "remote echo", L for "local echo", and N for "no character display"). Needing to carry a manual with the computer in order to use the software defeats the purpose of having a portable, and most people would be unable to remember the valid options just using the reference card supplied.

Room for Improvement

Aside from the manual, there are several other ways Geneva Connection could be improved. Since there are, to my knowledge, no other programs for the PX-8 that combine ALL of these features, nor do all users need them, these aren't necessarily major flaws. But I hope Epson will take heed and include them in the next version of *GC*.

Perhaps the greatest shortcoming is the lack of any way to introduce [illegible] loading a file. In theory, having X-on/X-off protocol should take care of this. But some systems do not utilize this protocol and cannot handle the uploading of a file at full speed. In those cases it's necessary to introduce a slight delay after sending each character, each line, or in both places. Since TERM includes this feature, it's especially surprising that *GC* does not.

One thing I would like to see built into any software for the Geneva is a low battery alert. This would be especially important in a communications application in which it may not be possible to handle a shutdown gracefully and for which the battery drain is much greater than for other uses like word processing.

Another problem that can be a serious flaw to some users is that the program can't seem to keep up with a really fast typist. I've tested both *GC* and TERM with the same typist under the same conditions and the output looks fine with TERM, but with *GC* there are dropped characters.

There are also a couple apparent bugs in the version I tested. One is that the program will not transmit control-P. Since this is the "break" character on some systems, it's important to be able to send a control-P. I used REPLACE 7F 10 to make the DEL key (which normally generates a hexadecimal 7F) produce the control-P code.

The other bug pertains to the function keys. I programmed the function keys with the names of the scripts I use most frequently. This works fine all but the first time a function key is used after starting the program. The first time a function key is used the first character of that key's string is lost. One final suggestion for Epson: since there are at most three ROM sockets available (the third only if you have a multi-function unit), it would be nice if the Geneva Connection ROM cartridge included the most important CP/M utilities. *GC* takes up only 8K, so if a 32K ROM were used all the frequently-used utilities could be included on the same ROM.

Conclusions

While Geneva Connection's price is a bit steep, those who use their Genevas regularly for telecommunications could benefit from a program like *GC*, especially if they have to go through long log-on sequences or need to repeat a series of keystrokes many times. It provides many useful features that cover the majority of applications quite nicely. Certain additional features would have been nice to have and others could have been better implemented, but Epson has crammed an incredible number of features into a scant 8K. The program can be copied into the RAM disk and run from there rather than occupying a ROM socket, so the small size makes up for some of the shortcomings. However, those who have purchased the internal modem or multi-function unit for their Geneva have a legitimate gripe about the price, since *GC* is the ONLY program from Epson that supports use of the internal modem.

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Sherwin Levinson is an independent consultant specializing in helping organizations apply the best of modern data communications technology to improving their productivity. His experience with data processing and management, spans over twenty years. Sherwin is a co-founder of Transcoastal Electronic News Service (TENS), whose interactive electronic reporting on the 1984 political conventions was acclaimed by readers and traditional media alike. He also leads the PX-8 users group that meets electronically in The Source's Participate section.

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Graphics & Pascal Part II

by David Crotty

Part I was a discussion about using graphics with MicroNova's TurboPlot and Borland's Turbo Pascal.

Part II discusses using TurboPlot in the TPM-2 environment

Using QXTURBO2.LBR

In order to gain access to the documentation and program in this utility one must use a library program like LU300.COM to extract the files from the library file and UNSQUEEZ.COM to unsqueeze the individual files in the library.

Using TurboPlot with the Valdocs Graphics Driver

In order to fully use the graphics capacities of the QX-10 under TPM-II the following sequence of programs must be used upon booting the TPM-II system:

VLOADER - Loads the Valdocs video driver
CMODE - A TurboPlot routine that returns the screen to character mode
TKK - Redefines the QX-10 keyboard
TURBO - enter the Turbo Pascal environment

It is best to prepare a submit file, for example TURBO.SUB, of the above commands and use the TPM submit utility, @, to run all the commands automatically.

Getting Out of Graphics Mode

During development of a program the programmer will often have occasion to have the program terminate prematurely. If this happens before the TurboPlot procedure FINIT has been executed the screen will be in a generally strange and unusable state. There are some conditions that the program CMODE can be run to return the screen to the useful character mode. For example, once out of the errant program the screen might be filled with graphics and text and the cursor might be off. However, the Turbo system will usually be in command mode, so type "X" to execute a program and then type A:CMODE. If this does not work then the machine must be reset. Normally, a TurboPlot graphics program will be written to execute the FINIT procedure and the QX-10 screen will be returned to character mode on program termination.

```
PROGRAM Fractals;
(*This is an adaption of the AppleSoft BASIC                    *)
(*program by Greg Turk found in the article                     *)
(*"Fractals", Peter R. Sorensen, BYTE, September 1984 page 157  *)
(*The first procedures correspond to the 'gosub' sections       *)
(*of the original program.                                      *)
(*This program is written using Turbo Pascal by Borland, Int.   *)
(*with the TurboPlot Graphics Package by MicroNova              *)
(*and runs under the TPM II system on the Epson QX 10           *)


(*The following include files contain the TurboPlot             *)
(*Procedures and Functions used in the Program                  *)
(*These files must be present on the logged drive               *)
(*at the time of compilation.                                   *)
{$I VARSC.TP}
{$I IPLOT.TP}
{$I WPLOT.TP}
{$I RPLOTC.TP}
{$I VPLOTC.TP}
{$I MPLOT.TP}
{$I NPLOTC.TP}
```

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```
VAR
  x,y : real;
  t,s : real;
  lx,ly : real;
  index : integer;

PROCEDURE SquareRootXY(VAR x,y:real);      (*gosub1000*)
  VAR
    t,s :real;
    substitute : real;
  BEGIN
    t:= y;
    s := SQRT(x * x + y * y);
    y := SQRT(abs(s - x)/2);
    x := SQRT(abs(x + s)/2);
    IF (t < 0) then
    x := -x;
  END; (*SquareRootXY*)

PROCEDURE FourOverL(VAR LX,LY : real);     (*gosub2000*)
  VAR
    s : real;
  BEGIN
    s := lx *lx + ly * ly;
    lx := 4 * lx / s ;
    ly := -4 * ly / s;
  END; (*FourOverL*)

PROCEDURE XYTimesL(VAR x,y,lx,ly : real);   (*gosub3000*)
  VAR
    tx,ty : real;
  BEGIN
    tx := x;
    ty := y;
    x := tx * lx - ty * ly;
    y := tx * ly + ty * lx;
  END; (*XYTimesL*)

PROCEDURE FunctionOfXY(VAR x,y,lx,ly : real);   (*gosub4000*)
  BEGIN
    XYTimesL(x,y,lx,ly);
    x := 1 - x;
    SquareRootXY(x,y);
    IF RANDOM < 0.5 THEN
      BEGIN
        x := -x;
        y := -y;
      END;
    x := 1 - x;
    x := x / 2;
    y := y / 2;
  END; (*FunctionOfXY*)

PROCEDURE GetValues(VAR lx,ly : real);     (*gosub5000*)
  BEGIN
    Write(con,'What is LambdaX,LambdaY?' );
    Readln(con,lx,ly);
    FourOverL(lx,ly);
  END; (*GetValues*)

PROCEDURE GetScreenOne;
  BEGIN
    Vwindow(-100,100,-100,100);      (*the virtual or User's coordinates     *)
    Swindow(0,199,0,199);            (*the actual screen window used         *)
  END;

PROCEDURE GetScreenTwo;
  BEGIN
    Vwindow(-75,75,-75,75);          (*parameters for both procedures are:   *)
    Swindow(300,550,100,350);        (*xmin,xmax,ymin,ymax                   *)
  END;
PROCEDURE PlotXY(x,y : real);        (*gosub6000*)
  VAR
    Xpoint,Ypoint : real;
  BEGIN
    Xpoint := (x-0.5)*100 ;
    Ypoint :=  y*100;
    GetScreenOne;
    Vpointa(Xpoint,Ypoint);          (*absolute pixel point is set          *)
    GetScreenTwo;                    (*within the virtual or user's         *)
    Vpointa(Ypoint,Xpoint);          (*coordinates with Vpointa             *)
  END; (*PlotXY*)
```

```
PROCEDURE SetFrameOne;
  BEGIN
    Rectangle(0,0,199,199);          (*draws rectangle around screen      *)
  END;                               (*window defined by Swindow          *)

PROCEDURE SetFrameTwo;
  BEGIN
    Rectangle(300,100,250,250);      (*parameters for  Rectangle are:     *)
  END;                               (*xmin,ymin,xdistance,ydistance      *)

PROCEDURE Frames;
  BEGIN
    SetFrameOne;
    SetFrameTwo;
  END;

BEGIN (*main*)
  x := 0.5001;
  y := 0.0;
  Clear(-1);
  GetValues(lx,ly);
  clear(-1);              (*clears current screen                         *)
  Init;                   (*Initialize graphics screen and params         *)
  Frames;
  REPEAT
    PlotXY(x,y);
    FOR index := 1 to 10 DO
      FunctionOfXY(x,y,lx,ly);
    PlotXY(x,y);
    FunctionOfXY(x,y,lx,ly);
  UNTIL KEYPRESSED;
  Pause;
  Clear(-1);              (*clear current screen                          *)
  Finit;                  (*Return screen to normal character mode*)
END. (*main*)
```


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Valdocs 2

»USER TIPS«

DISKFULL...Slow Editing...
by Carolyn McCarthy

You may have noticed that your disk drives are being written to almost continuously while you are in the Editor (the red B drive light keeps coming on). Valdocs 2 creates a temporary file called EDITCUR0 which holds all the information relative to editing a document onscreen. Information is stored in various places on your disk, in fragments, as you do your editing. **WARNING!!** This EDITCUR0 file has been known to grow as large as 360K when numerous block moves and editing changes are made. The current way to deal with this is to STORE your document as you go along. This will empty the EDITCUR0 file, and keep your document handling faster.

* Converting 1.18 to 2.0. A problem exists in converting series 1 documents which contained underlined text. If you used CTRL STYLE to underline text, you will run into problems converting the document into Valdocs 2 format. Solution: WAIT!A fix is being worked on.

* Double spacing in Valdocs 2. Selection of line spacing is done with CTRL O, the Onscreen menu. Previously double spacing would show up that way on your screen. Valdocs 2 does not show doublespacing on the screen as you type, even when it is selected. It does adjust the page to end at half the number of lines, but "what you see is what you get" is gone.

* RX-80 SETUP. To enable your RX to be most compatible with Valdocs 2 we suggest you set it up as a LX-80 in printer SETUP if you want the sub and superscr[illegible]

* Retrieving an ASCII file into Valdocs 2. W[illegible]ng you set your left margin to 0 before retri[illegible]

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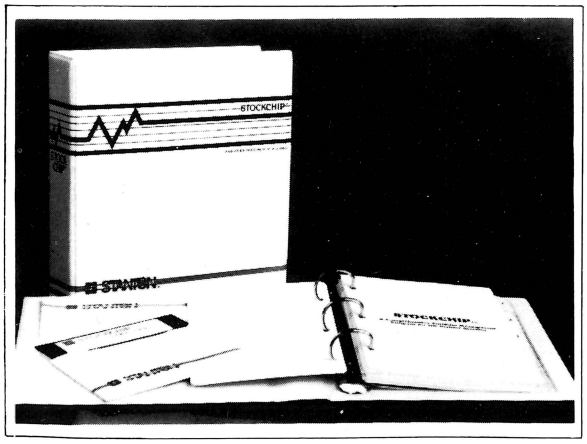

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==MBASIC Challenge==

by Allen Howell

The program below is a very basic modem program written in MBASIC, and amazingly, it is a one line program! It will run on the QX-10 with any external modem with no problems. Type it in and see for yourself.

```
10 X=(INP(19) AND 1):IF X THEN
Y=INP(17):PRINT CHR$(Y);:GOTO 10
ELSE Y$=INKEY$:IF Y$="'' THEN 10
ELSE OUT 17,ASC(Y$):GOTO 10
```

This program should work on most CP/M machines, however, the address of the modem port (17) and the modem status port (19) may need to be changed. Also note that this is a very dumb modem program and that it performs no other functions other than displaying information from a host site to your screen and allows you to type back.

If you are intrigued by this program, then I challenge all of you MBASIC programmers to come up with your own "one-liner" MBASIC program. If we find it worthy, we'll publish it in the EpsonConnection. Send your "one-liner" to:

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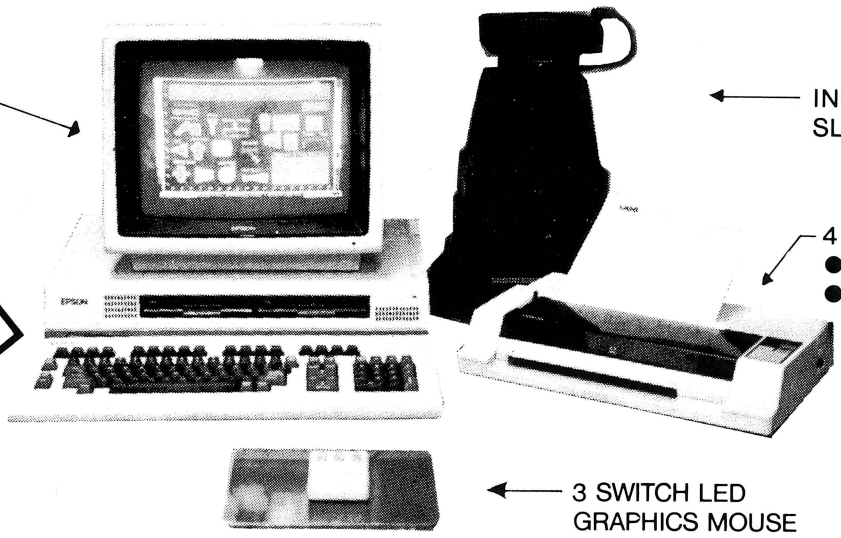

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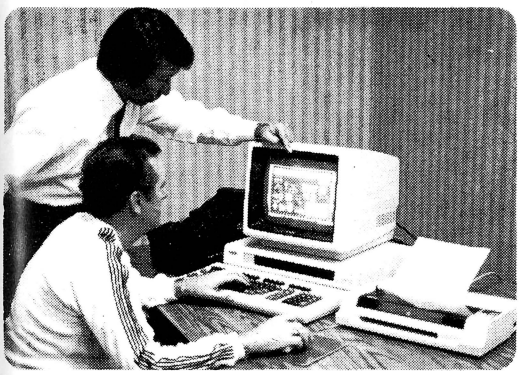

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